ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-01	General Criteria; accomplish	I	***14 SEP 2000***
009-02	Reporting of Material Usage Requirements for Work at Naval Facilities for Environmental Compliance; accomplish	I	23 SEP 1999
009-03	Toxic and Hazardous Substances; control	I	23 SEP 1999
009-04	Quality System; provide	I	***14 SEP 2000***
009-05	Temporary Accesses; provide	I	23 SEP 1999
009-06	Protection During Contamination-Producing Operations and Maintaining Cleanliness; accomplish	I	05 JUN 2000
009-07	Fire Prevention and Housekeeping; accomplish	I	***14 SEP 2000***
009-08	Fire Protection at Contractor's Facility; accomplish	I	23 SEP 1999
009-09	Process Control Procedure (PCP); provide and accomplish	II	23 SEP 1999
009-10	Shipboard Asbestos-Containing Material (ACM); control	I	23 SEP 1999
009-11	Insulation and Lagging Requirements; accomplish	II	23 SEP 1999
009-12	Welding, Fabrication, and Inspection Requirements; accomplish	II	23 SEP 1999
009-13	Meters; repair and calibrate	II	23 SEP 1999
009-14	Gages and Thermometers; repair and calibrate	II	23 SEP 1999
009-15	Rotating Machinery; balance	II	23 SEP 1999
009-16	Electronic Equipment; repair	II	23 SEP 1999
009-17	Rotating Electrical Equipment; repair	II	23 SEP 1999

ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-18	Magnetic Material; control	I	28 JUL 1998
009-19	Provisioning Technical Documentation (PTD); provide	I	***14 SEP 2000***
009-20	Government Property; control	I	20 APR 1998
009-21	***Logistics and Technical Data; provide***	***I***	***14 SEP 2000***
009-22	Shipboard Electric Cable; test	II	23 SEP 1999
009-23	Interferences; remove and install	I	23 SEP 1999
009-24	Isolation, Blanking, and Tagging Requirements; accomplish	I	***14 SEP 2000***
009-25	Structural Boundary Test; accomplish	II	23 SEP 1999
009-26	Teletype Equipment; repair	II	23 SEP 1999
009-27	Material Identification and Control (MIC) for Level I Systems; accomplish	II	07 NOV 1997
009-28	Metal Sprayed Coating System for Corrosion Protection; accomplish	II	13 SEP 1996
009-29	Asbestos-Free Pipe Hanger Liner Material; install	I	13 SEP 1996
009-30	Boiler Sample Tubes; inspect	II	07 NOV 1997
009-31	Boiler Waterjet Cleaning; accomplish	II	07 NOV 1997
009-32	Cleaning and Painting Requirements; accomplish	II	***14 SEP 2000***
009-33	Rotating Electrical Equipment; rewind	II	23 SEP 1999
009-34	Fire Protection of Unmanned Craft at Contractor's Facility; provide	I	06 NOV 1998
009-35	Fire Prevention and Housekeeping; accomplish	I	23 SEP 1999
009-36	Controller; repair	II	23 SEP 1999
009-37	General Procedures for Woodwork; accomplish	II	23 SEP 1999
009-38	Boiler Dry Lay-up; accomplish	II	07 NOV 1997

ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-39	Technical Manual Contract Requirement (TMCR) for New Technical Manuals for Commercial Equipment/Component; provide	II	07 NOV 1997
009-40	Requirements for Contractor Cranes at Naval Facilities; accomplish	I	23 SEP 1999
009-41	Technical Manual Contract Requirement (TMCR) for a Topically Structured Technical Manual; provide	II	07 NOV 1997
009-42	Technical Manual Contract Requirement (TMCR) for Updating Technical Manuals; provide	II	07 NOV 1997
009-43	Light-Off Assessment (LOA) Support for Steam Propulsion System; provide	II	13 SEP 1996
009-44	Light-Off Assessment (LOA) Support for Gas Turbine Propulsion System; provide	II	13 SEP 1996
009-45	Tapered Plug Valve; repair	II	23 SEP 1999
009-46	Butterfly Valve, Synthetic and Metal Seated; repair	II	23 SEP 1999
009-47	Gate Valve; repair	II	23 SEP 1999
009-48	Pressure Seal Bonnet Valve; repair (shop)	II	23 SEP 1999
009-49	Pressure Seal Bonnet Valve; repair (in-line)	II	23 SEP 1999
009-50	Horizontal Swing Check Valve; repair	II	23 SEP 1999
009-51	Globe, Globe Angle, and Globe Stop Check Valve; repair	II	23 SEP 1999
009-52	Relief Valve; repair	II	23 SEP 1999
009-53	Bolted Bonnet Steam Valve; repair (shop)	II	23 SEP 1999
009-54	Bolted Bonnet Steam Valve; repair (in-line)	II	23 SEP 1999
009-55	Regulating/Reducing Valve; repair	II	23 SEP 1999
009-56	Boiler Wet Lay-up; accomplish	II	23 SEP 1999

ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-57	Cancelled 06 NOV 1998		
009-58	Pump and Driver Shaft Alignment; accomplish	II	23 SEP 1999
009-59	Organotin Antifouling Materials; control	I	07 NOV 1997
009-60	Schedule and Associated Reports; provide and manage	I	23 SEP 1999
009-61	Shipboard Use of Fluorocarbons; control	I	23 SEP 1999
009-62	Boiler Handhole and Manhole Seats and Plates; inspect	II	13 SEP 1996
009-63	Lubricating Oils and Hydraulic Fluids; analyze	II	07 NOV 1997
009-64	Synthetic Fire Resistant Hydraulic Fluid; control	I	13 SEP 1996
009-65	Polychlorinated Biphenyls (PCB's); control	I	23 SEP 1999
009-66	Light-Off Assessment (LOA) Support for Diesel Propulsion System; provide	II	13 SEP 1996
009-67	Integrated Total Ship Testing; manage	I	06 NOV 1998
009-68	Bolted Bonnet Valve; repair	II	23 SEP 1999
009-69	Heavy Weather Plan; provide	I	23 SEP 1999
009-70	Fire Prevention and Housekeeping for Unmanned Craft; accomplish	I	***14 SEP 2000***
009-71	Testing Requirements for Piping Systems; accomplish	II	23 SEP 1999
009-72	Physical Security of Naval Vessels at Private Contractor's Facility; accomplish	I	13 SEP 1996
009-73	Shipboard Electrical/Electronic/ Fiber Optic Cable; remove, relocate, repair, and install	I	23 SEP 1999
009-74	Man-Made Mineral Fiber Thermal Insulating Material; control	I	23 SEP 1999
009-75	Circuit Breaker; repair	II	06 NOV 1998

ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-76	Waveguide and Transmission Line Temporary Lay-Up, Pressurization, and Purging; accomplish	II	23 SEP 1999
009-77	Cofferdam Requirements; accomplish	II	07 NOV 1997
009-78	***Passive Countermeasures System (PCMS) Material Installation Requirements; accomplish***	***II***	***14 SEP 2000***
009-79	Government Owned Material (GOM); status reporting	I	06 NOV 1998
009-80	Ship's Facilities; provide	I	07 NOV 1997
009-81	Compartment Closeout Schedule; provide	I	07 NOV 1997
009-82	Data Requirements When Installing an Equal Component Vice Specified Component; provide	I	13 SEP 1996
009-83	Wire Rope Fitting Verification; provide	I	13 SEP 1996
009-84	Accountability of Temporary Fasteners; provide	I	13 SEP 1996
009-85	Government Sponsored Planning Yard/Configuration Data Manager (CDM) On-Site Representative Facility; provide	II	13 SEP 1996
009-86	Recovery of Chlorofluorocarbon (CFC's) and Fire Suppressant Halon (H) Materials; accomplish	I	23 SEP 1999
009-87	Chlorination Procedures; accomplish	I	07 NOV 1997
009-88	Tanks, Spaces, and Piping; certify	I	23 SEP 1999
009-89	Purchase and Inspection Requirements for Contractor Furnished Zinc Anodes; accomplish	I	13 SEP 1996
009-90	Technical Representative; provide	II	13 SEP 1996
009-91	Propeller In-Place Inspection; accomplish	II	23 SEP 1999
009-92	Resilient Mount; install	II	13 SEP 1996

ITEM NO.	TITLE	UTILIZATION CATEGORY	DATE
009-93	Emergency Planning and Community Right-to-Know Act (EPCRA) and Pollution Prevention Act (PPA) Information; provide	I	06 NOV 1998
009-94	General Environmental Requirements for Work at Contractor's Facility; accomplish	I	06 NOV 1998
009-95	Mechanically Attached Fittings (MAF's) for Piping Systems; install	I	06 NOV 1998
009-96	Ball Valve; repair	II	23 SEP 1999
009-97	Ship Building and Ship Repair Operations National Emission Standard for Hazardous Air Pollutants (NESHAPS) for Surface Coatings Information; provide	I	06 NOV 1998
009-98	Monel Fasteners; inspect	II	07 NOV 1997
009-99	Ship Departure Report; provide	I	06 NOV 1998
009-100	Ship's Stability (PCP); maintain	I	23 SEP 1999
009-101	Requirements for Mooring, Entry to, and Departure from Contractor's Facility; accomplish	I	23 SEP 1999
009-102	Alteration Verification; provide	I	23 SEP 1999

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-01
DATE: 14 SEP 2000
CATEGORY: I

1. SCOPE:

1.1 Title: General Criteria; accomplish

2. REFERENCES:

a. 40 CFR Part 61, EPA

b. S0420-AA-RAD-010, Radiological Affairs Support Program Manual

3. REQUIREMENTS:

3.1 Report delays to the SUPERVISOR.

3.1.1 In the event difficulty is encountered in meeting requirements or difficulty is anticipated in complying with the contract schedule dates, notify the SUPERVISOR immediately by verbal means, followed on the next work day by an original and two copies of a letter stating pertinent details. Receipt of this notification by the SUPERVISOR is not to be construed as a waiver of the requirements, delivery schedule by the Government, or waiver of rights or remedies provided by law or under this Job Order or any other requirements in the Job Order relating to jeopardy of contract schedule dates.

3.2 Submit reports to the SUPERVISOR identifying additional work or material procurement that is necessary in order to produce a reliable or complete repair. The goal is to have required work completed within the original contract period.

3.2.1 When a Work Item requires submission of a report that could result in a change in work to be accomplished or additional material to be procured, complete the preliminary work and submit the required report in a time frame to allow the SUPERVISOR to initiate early action, but no later than the first 20 percent of the availability.

3.2.1.1 Submit all drydock-related inspection reports no later than the first 20 percent of the scheduled docking period.

3.2.2 When a Work Item does not require a report for additional work or material procurement, and an additional report is determined to be

necessary, submit a report with supporting data as early as possible in the contract period.

3.2.3 Reports shall contain the following information:

3.2.3.1 Name and hull number of the ship or craft, and Job Order, Work Item, and paragraph numbers

3.2.3.2 A description of the conditions found with supporting data. Include annotated sketches, graphs, and photographs when necessary to make a report clearly understandable to the SUPERVISOR. Identify actual readings/dimensions taken.

3.2.3.3 Recommendations

3.2.3.4 A list of material required

3.3 Accomplish tests and checkouts.

3.3.1 Complete work which requires tests in time to allow correction of deficiencies prior to dock trials, sea trials, or other applicable milestones established in the Job Order.

3.3.2 Do not operate newly installed or repaired equipment. Ship's Force will accomplish such operation when required for test and checkout purposes. Such requirements will be coordinated by the SUPERVISOR.

3.4 Provide labor, material, and equipment which is required to complete the Work Item, including that which is indicated on drawings or test specifications as being provided by sources other than the contractor, unless specifically listed as Government Furnished Material (GFM) in Paragraph 5 of the Work Items.

3.4.1 Manufacture parts that are not available from the vendor/manufacturer, utilizing NAVSEA approved drawings, technical manuals, templates, or sketches.

3.4.2 Submit four legible copies of a status report, listing Contractor Furnished Material (CFM) required to accomplish the work in Work Items that are not already on hand, to the SUPERVISOR not later than 30 calendar days after the Job Order award, or 2 calendar days after availability start date, whichever occurs first. Update the report and submit four revised copies to the SUPERVISOR every 2 weeks during the entire contract period. The reports are to contain the following:

3.4.2.1 Contract Work Item number

3.4.2.2 Contractor's purchase order number

3.4.2.3 Description of material

3.4.2.4 Quantity ordered

3.4.2.5 Date scheduled to be ordered

3.4.2.6 Date ordered

3.4.2.7 Date required to meet production schedule

3.4.2.8 Proposed receipt date

3.4.2.9 A summary listing any problem areas

3.4.2.10 Date submitted to the SUPERVISOR

3.4.3 Purchase Orders

3.4.3.1 Maintain a file of purchase orders for CFM for review by the SUPERVISOR upon request.

3.4.3.2 Submit one legible copy of selected purchase orders to the SUPERVISOR upon request.

3.4.4 Submit one legible copy of a report listing Work Item number, subcontractor involved in Work Item, and paragraphs assigned to subcontractor, to the SUPERVISOR prior to the start of work being accomplished by subcontractor.

3.4.4.1 Pricing data may be eliminated from the purchase orders prior to submission to or review by the SUPERVISOR.

3.5 The length of externally threaded fasteners shall be such that a minimum of two threads to a maximum of five threads shall protrude beyond the crown of the tightened nut.

3.6 Procure Military Specifications and Standards and Commercial Specifications and Standards.

3.6.1 Procure unclassified NAVSEA Standard Plans, Military Specifications and Standards, and Commercial Specifications and Standards referenced in the Work Items.

3.6.1.1 Obtain unclassified Military Specifications and Standards from the Navy Publication and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120, by submission of a request on DD Form 1425 (Specifications and Standards Requisition). The statement, "For use on USS _____, under Master Agreement for Repair and Alteration of Vessel Number _____", is to be included on the form.

3.6.1.2 Complete DD Form 1425 to show the Military Specification Standard title, number, date, and any applicable amendment thereto by number and date.

3.6.2 Classified Military Specifications are available at the office of the SUPERVISOR.

3.6.3 Work Items will normally reference the basic Government Specifications, Standards, or NAVSEA Standard Plans, without prefix zeros or suffix letters or numbers which identify revisions or amendments. Unless otherwise specified, the effective issue of these basic referenced documents, including revisions or amendments, shall be the most recent issue at the date of solicitation for a Job Order. Wherever specific dates for specifications, standards, and publications or amendments, revisions, or alterations thereto are specified in the Work Items, issues of those dates specifically shall apply in lieu of any other issue. Where industry standards such as ASTM and ANSI are referenced, the issue or revision in effect on the date specified for Government publication applies.

3.7 Submit requests for deviations to the SUPERVISOR.

3.7.1 A deviation is defined as any action which is not in conformance with the Work Item requirements, including references thereto, no matter how minor.

3.7.2 Deviations from Work Items and references thereto will not be considered by the SUPERVISOR without a written request from the contractor.

3.7.3 An original and three copies of requests for deviations shall be forwarded to the SUPERVISOR.

3.7.4 The Government does not have an obligation to approve any deviation; it may elect to do so if benefit to the Government can be shown. Accomplish deviation only when authorized in writing by the SUPERVISOR.

3.8 Accomplish the requirements of the contract.

3.8.1 Noncompliance/nonconformance with the requirements of the Job Order discovered by the Government will be reported to the contractor in writing.

3.8.2 Respond in writing to the report, indicating corrective action taken and, where applicable, the action to be taken to correct the cause of the deficiency. Written response shall be submitted to the SUPERVISOR.

3.9 Comply with security requirements.

3.9.1 In the event that the work required by the Job Order requires access to spaces or equipment that are classified, or use of technical manuals, references, or drawings that are classified, the specific security

clearance requirements will be identified in the individual Work Item in addition to the requirements provided in the Invitation for Bid/Request for Proposal (IFB/RFP) by the Contract Security Classification Specification (DD Form 254).

3.9.2 Verify that personnel, including subcontractor's personnel, are cleared for the required level of security classification for handling, repair, installation, and testing of classified equipment and for access to areas of the ship which require a specific security clearance.

3.9.2.1 After selection of a subcontractor, prepare in triplicate a DD Form 254 for the subcontract and request the official designated in Paragraph 14.b of the DD Form 254 for the prime contract to approve and sign the DD Form 254 for the subcontract and to make the required distribution. In preparing the DD Form 254 for subcontracts, extract pertinent data from the DD Form 254 pertaining to the prime contract.

3.9.2.2 Prior to starting work on a Work Item that requires a security clearance, submit a list in triplicate of the names, badge numbers or other identification numbers, and security clearances of contractor and subcontractor personnel who will require access to classified information or areas in order to accomplish the work.

3.9.3 Verify that classified equipment removed from ship and classified documents, such as drawings, instruction books, and test specifications, are marked or tagged and safeguarded at all times in accordance with the National Industrial Security Program Operating Manual (DOD 5220.22-M).

3.10 Comply with applicable federal, state, and local laws, codes, ordinances, and regulations in their entirety. Any reference to a specific portion of a federal, state, or local law, code, ordinance, or regulation in this or any other item shall not be construed to mean that relief is provided from any other sections of the law, code, ordinance, or regulation.

3.10.1 Provide appropriate notification to regional United States Environmental Protection Agency (EPA) in accordance with the requirements of 2.a. Also, comply with notification requirements of state and local air pollution control laws.

3.10.2 Submit one legible copy of notification required in 3.10.1 that has been provided to any regulatory authority for work on board the vessel to the SUPERVISOR within two working days of providing such notice to the regulatory authority.

3.11 Submit one legible copy of the Material Safety Data Sheet for each hazardous material that will be utilized aboard the ship and/or in a naval facility during the performance of this Job Order to the SUPERVISOR, 72 hours prior to the start of work.

3.12 Comply with the requirements of 2.b when using Nuclear Regulatory Commission (NRC) licensed radioactive material or machine sources of ionizing radiation on Government property.

3.12.1 Do not commence operating prototype or developmental systems using radioactive material or machine sources of ionizing radiation on Government property until authorized by NAVSEADET RASO, via the SUPERVISOR. NAVSEADET RASO's address/telephone number is:

Naval Sea Systems Command Detachment
Radiological Affairs Support Office
NWS P.O. Drawer 260
Yorktown, VA 23691-0260
(757) 887-4692

3.12.2 Contract personnel shall not be used as operators under a Navy Radioactive Material Permit (NRMP) issued to a naval facility. Navy personnel shall not be used as operators under a Nuclear regulatory Commission (NRC) or Agreement State License issued to a contractor.

3.12.3 For use of licensed radioactive material, submit to NAVSEADET RASO via the SUPERVISOR, a copy of the applicable NRC or Agreement State license including procedures regarding system process and operation. In addition, Agreement State licensees shall provide evidence of NRC Form 241 (Report of Proposed Activities in a Non-Agreement State) with the copy of the license.

3.12.4 NAVSEADET RASO shall apprise the contractor, via the SUPERVISOR, of any radiation safety shortcomings to be rectified prior to commencing operations.

4. NOTES:

4.1 Labor or material progress payments on deficient Work Items will be withheld until each deficiency has been corrected.

4.2 For the purposes of this Job Order, the term "day" means 24 hours prior to the scheduled event.

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-04 |
DATE: 14 SEP 2000 |
CATEGORY: I |

1. SCOPE:

1.1 Title: Quality System; provide

2. REFERENCES:

a. ANSI/ASQC Q9002-1994, Quality Systems - Model for Quality Assurance in Production, Installation, and Servicing

b. ANSI/NCSL Z540-1, General Requirements for Calibration Laboratories and Measuring and Test Equipment

3. REQUIREMENTS:

3.1 Establish, document, and maintain a Quality System as a means of ensuring that product conforms to specified requirements. The system shall, as a minimum, comply with the requirements of 2.a and all additional contract requirements. The documented Quality System shall be submitted to the SUPERVISOR for an adequacy review and acceptance. The contractor shall have an acceptable documented Quality System, in accordance with this Standard Item, in place to receive an award of a Job Order. The Quality System shall be subject to periodic compliance audits by the SUPERVISOR throughout the contract.

3.2 The corrective and preventive action program shall require that a copy of the written responses to contractor generated correction actions will be provided to the SUPERVISOR when requested.

3.3 Purchasing documents shall contain the following statement when government inspection is requested by the SUPERVISOR: "Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify and furnish a copy to the government representative who normally services your plant so that appropriate planning for government inspection can be accomplished. In the event the government representative or office cannot be located, our purchasing agent shall be notified immediately."

3.4 Receipt inspection of contractor furnished materials shall be based on supplier performance history and one or more of the following: certificate of compliance, vendor material test certification data, or testing using sampling techniques. Use of black-oxide coated brass threaded fasteners

(BOCBTF) is not authorized in the accomplishment of any work under this contract.

3.5 The calibration system shall, as a minimum, comply with the requirements of 2.b.

3.6 A separate Inspection and Test Plan shall be developed for each Work Item. An Inspection and Test Plan shall:

3.6.1 Be prepared for each Work Item in the Job Order which requires performance of productive work prior to the start of work on that specific Work Item. It shall be revised and updated as work proceeds on each Work Item and shall be available upon request by the SUPERVISOR. Supporting data for inspections or tests requiring government notification (G), including accept/reject criteria, shall be available at the location of each inspection or test.

3.6.2 Identify by paragraph and appropriate symbol(s) (see 3.9 and 3.10), each inspection and test required by the Work Item and the contractor to substantiate product conformance. Inspections and tests required by the Work Item that provide a report of conditions found are not required to be included in the Inspection and Test Plan.

3.6.3 Provide identification of the item to be inspected by name, number, and location (e.g., number 3 main feed pump, 5-180-0-E).

3.6.4 Provide identification of each characteristic of the items to be inspected and provide the criteria for acceptance for each characteristic (e.g., air test; two PSIG for 10 minutes; no drop). Acceptance and rejection criteria for inspections to determine initial condition need not be provided in the Inspection and Test Plan unless specifically required by the Work Item.

3.7 Inspection and test records shall:

3.7.1 Include the ship's name and hull number, Job Order and Work Item numbers, date, and signature of the contractor's authorized representative who witnessed or performed the inspection or test.

3.7.2 Be maintained at a contractor location accessible to the site of the work required by the Job Order.

3.7.3 Include the appropriate design criteria for each attribute or measurement required by the basic item for initial condition of equipment, structure, or ship system reports.

3.7.4 Be documented within 24 hours of accomplishment. Records shall be incorporated into the Inspection and Test Plan within 72 hours after completion of each inspection or test.

3.8 The SUPERVISOR will consider the Work Item incomplete if the contractor's documentation and records are not complete.

3.9 Accomplish (I) and (V) inspection/test requirements as follows:

3.9.1 (I) and (V) are symbols inserted in a Work Item to establish a point in the sequence of accomplishment of work at which time the contractor shall inspect/verify and document the inspection or test.

3.9.1.1 (I) inspections require verification by a separate individual, other than the person who has accomplished the work, who is qualified as an inspector.

3.9.1.2 (V) inspections require verification by either the qualified tradesperson, trade supervisor, or inspector.

3.10 Accomplish government notification during normal day shift working hours for inspection/test requirements identified by the symbol (G).

3.10.1 (G) is a symbol inserted in a Work Item to establish a point in the sequence of accomplishment of work at which time the SUPERVISOR shall be notified to permit observation of a specific inspection or test by the government.

3.10.2 Notify the SUPERVISOR's designated representative at least four hours, but not more than one working day, prior to commencing the specific requirements in the paragraph annotated with the symbol (G). Notify the SUPERVISOR at least 48 hours, but not more than 72 hours, prior to commencing (G) POINTs at contractor's/subcontractor's plants located in excess of 50 miles by the most direct roadway from the contractor's/subcontractor's plant nearest to the place of performance of the contract. Document the date, time, and identification of the SUPERVISOR's representative notified.

3.10.3 A qualified contractor representative shall be present to accept or reject inspections or tests annotated with the symbol (G).

3.10.4 When the symbol (G) precedes inspections or tests in a Work Item which are applicable to more than one action, the symbol (G) shall identify the action required, e.g., (G) "HYDROSTATIC TEST". When more than one unit is involved, the (G) notification requirement applies to each unit.

3.10.5 Notify the SUPERVISOR not later than four hours before the end of the last preceding day shift when inspections or tests following a (G) POINT are scheduled after normal day shift working hours, on a weekend, or on a federal holiday.

3.10.6 Proceed with the inspection or test if the SUPERVISOR is not present, provided the required advance notice has been furnished to the SUPERVISOR and the contractor has completed and documented the preceding inspections and tests.

3.10.7 A partial inspection or test requiring (G) notification may be accomplished in the event that all work cannot be completed and work progress would be delayed in waiting for total completion of work. Comply with the requirements of 3.10.2 when the incomplete work is completed and ready for the remainder of the inspection or test. Note partial inspections on the inspection or test form.

3.10.8 Invoke (G) notification requirements for inspections or tests involving a subcontractor in purchase orders or otherwise described such that the requirements of 3.10.2 are met.

3.10.8.1 Submit one legible copy of the technical specification portion of those purchase orders, or a report identifying the applicable information, which involve (G) notifications to the SUPERVISOR prior to the start of work by the contractor/subcontractor.

3.10.8.2 Submit one legible copy of those purchase orders for work being accomplished by contractor/subcontractor located outside a 50-mile radius of the place of contract performance to the SUPERVISOR prior to shipment of purchase order and equipment. For contractors with facilities outside the 50-mile radius, a report identifying the applicable information may be submitted in lieu of a purchase order.

3.11 The qualified contractor's representative shall witness or perform and document all inspections and tests within a 50-mile radius of the contractor's plant nearest to the place of performance of the contract.

3.11.1 The authority to witness or perform and document inspections and tests may be delegated to subcontractors who are MSRA and ABR agreement holders and have a current Quality System accepted by the SUPERVISOR. (G) POINT notification requirements shall not be delegated.

3.12 The contractor may delegate responsibility to subcontractors for inspections and tests performed at plants located outside a 50-mile radius of the contractor's plant nearest to the place of performance of the contract; however, the (G) POINT notification requirements shall not be delegated.

3.13 Maintain a current list for reference by the SUPERVISOR, designating the contractor's qualified inspectors who witness or perform and sign for symbol (I) inspections, indicating the type of inspections and tests for which each inspector is qualified. When subcontractors are delegated responsibility, the subcontractor's qualified inspectors shall be included on this list.

4. NOTES:

4.1 ANSI/ASQC Q9001 and Q9002 commercial third party registrar certification is not required.

4.2 Procedures and Process Control Procedures (NAVSEA Standard Item 009-09) invoked by NAVSEA Standard Items, MIL-STDs, drawings, and specifications, although an integral part of the Quality System, are to be submitted and approved by the SUPERVISOR independent of the Quality System.

4.3 The recommended Quality System structure is the Level A, B, and C hierarchy as described in ANSI/ISO/ASQC Q10013, Guidelines for Developing Quality Manuals.

4.4 The Quality System submitted in 3.1 requires a one-time submittal/acceptance unless this NAVSEA Standard Item and/or references change or contractor's status changes.

4.5 Records and documents submitted to the SUPERVISOR may be in the form of any type of media, such as hard copy or electronic media.

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-07
DATE: 14 SEP 2000
CATEGORY: I

1. SCOPE:

1.1 Title: Fire Prevention and Housekeeping; accomplish

2. REFERENCES:

a. 29 CFR Part 1915, OSHA

b. National Fire Protection Association Standard 51B

c. National Fire Protection Association Standard 312

d. National Fire Protection Association Standard 306

3. REQUIREMENTS:

3.1 Comply with the requirements of 2.a through 2.d and this item to determine whether or not an explosive or other dangerous atmosphere exists in spaces and piping aboard the ship, including sewage collection and holding tanks, and then control hot work and entry to those spaces to preclude damage to the ship or injury to personnel.

3.1.1 Provide training for Competent Persons and provide updated training on an annual basis by a National Fire Protection Association (NFPA) certified Marine Chemist using Section 1915.7 of 2.a as guidance or under an NFPA approved Competent Person Training Program. The length of the initial training class shall be at least 24 hours. Yearly refresher training shall be at least 8 hours.

3.1.2 Post a copy of the Marine Chemist's certificate or Certified Industrial Hygienist's or Competent Person's test/inspection record at each access to the affected space while work in the space is in progress. A copy of the certificate or test/inspection record shall also be delivered to a location designated by the SUPERVISOR. In the event that the space is found to be not Safe for Workers/not Safe for Hot Work, the space shall be posted accordingly and the SUPERVISOR and ship shall be notified immediately.

3.1.2.1 Initial certification of spaces that require a Certified Marine Chemist's certificate or Certified Industrial Hygienist's test/inspection and subsequent certification made in support of work

operations shall be effective for 24 hours or until conditions change which would void the certificate (whichever comes first).

3.1.2.2 Subsequent tests and inspections which continue the space certifications shall be made by a Competent Person to support work operations and shall be effective for 24 hours or until conditions change (affecting the designation for which the spaces were certified), whichever comes first.

3.1.2.3 The 24-hour interval for subsequent tests and inspections made by a Competent Person as described in 3.1.2.2 is not required during non-working periods (not in excess of 72 hours); however, the Competent Person shall perform the tests and inspections required on all confined spaces involved, and affected adjacent spaces, before anyone is permitted to enter those spaces, on the next working day. Confined spaces and enclosed spaces and affected adjacent spaces shall be checked prior to commencing hot work operations on the next working day following the non-working period (not to exceed 72 hours). If the 72-hour non-working period is exceeded, then the certifications in 3.1.2.1 are required.

3.1.3 Tank cleaning personnel shall be trained annually on safety practices to include a discussion of safety information found in Subparts A, B, and Section 1915.152 of Subpart I of 2.a.

3.1.4 Submit one legible copy of each of the following documents to the SUPERVISOR prior to the accomplishment of work requiring the services identified below.

3.1.4.1 A roster of designated Competent Persons, along with contractor certification that the training in 3.1.1 has been completed within the past year. Updates to the roster each time Competent Persons are added, deleted, or recertified.

3.1.4.2 A list of Competent Person(s) and tank cleaning personnel who will enter or work in confined spaces, including company name, badge number, and date training was provided in accordance with 3.1.1 and 3.1.3.

3.1.4.3 A list of the names of the Shipyard/Plant Rescue Team Members, along with contractor certification that the training in 3.1.1 has been completed within the last year, or certification that arrangements have been made for an outside rescue team to respond promptly to a request for rescue service.

3.1.4.4 A copy of the program to be utilized to train fire watches in the areas identified in 2.a and 2.b, including steps to be taken by the fire watch and hot work operator prior to accomplishment of hot work, proper selection and use of fire extinguishing equipment and other safety equipment, relationship between the fire watch and hot work operator, proper fire reporting procedures and other sounding of fire alarms, and reporting of

accidents to the ship's quarterdeck. This training should also include theory and practical (hands-on) fire suppression techniques. This training shall be provided to all newly assigned fire watches, with annual updates provided to personnel. ***Provide visible means of identifying trained fire watches, i.e., badge, sticker, vest, etc.***

3.1.5 Notify the SUPERVISOR prior to entry into spaces designated as Immediately Dangerous to Life or Health (IDLH) as defined in Paragraph 1915.11(b) of 2.a.

3.2 Provide a written notice for each job or separate area of hot work aboard ship.

3.2.1 The notice shall state a description of the work to be done, the specific location of the hot work and compartments adjacent to decks, bulkheads, and similar structures upon which hot work is to be accomplished, the time hot work will commence, current gas-free status of the area, the ¤ absence or existence of combustible material in the vicinity of the operation, and if combustible material exists, what action shall be taken to protect the material from fire, the provision and assignment of a fire watch, and the affirmation that conditions at the work site (ventilation, temporary lighting, accesses) permit the fire watch to observe all areas where the hot work constitutes a fire hazard.

3.2.2 The notice shall affirm that a suitable, fully-charged fire extinguisher shall be available at the job site and provide for an inspection of the area 30 minutes after completion of the hot work or the cessation of hot work at the job site as the final action to complete the notice if no further fire hazard exists.

3.2.3 The notice shall be signed by a supervisor specifically designated as responsible for coordination of the hot work and the fire watch requirement.

3.2.4 One copy of each notice shall be given to the SUPERVISOR and one copy to the designated representative of the vessel's Commanding Officer where applicable.

3.2.5 The notice to the Commanding Officer's representative shall precede the initiation of the actual hot work in order to permit the Commanding Officer to designate a member of the crew to observe the operation, if desired.

3.2.5.1 Notification of hot work planned Tuesday through Friday shall be delivered to the Commanding Officer's representative at least 30 minutes and not more than 24 hours preceding start of work.

3.2.5.2 Notification of hot work planned over a weekend or Monday following that weekend shall be delivered to the Commanding Officer's

representative no later than 0900 on the Friday immediately preceding that weekend.

3.2.5.3 Notification of hot work planned on a federal holiday and on the day following the federal holiday shall be delivered to the Commanding Officer's representative no later than 0900 of the last working day preceding the federal holiday.

3.2.6 The notice shall be effective for 24 hours unless a shorter period is specified in the contract or the gas-free status of the work area or system requires stopping the work. A new notice is required if work is interrupted due to loss of gas-free status.

3.3 Provide fire watches, trained as outlined in 3.1.4.4, at all affected areas where hot work is being accomplished. Provide fire extinguishing equipment as described in 2.a through 2.c. Fire watches and equipment shall meet the following requirements, as a minimum:

3.3.1 A firewatch(es), other than hot work operator, is required when:

3.3.1.1 Any flame cutting, welding, plasma cutting, arcing and gouging, electric arc welding, thermal spraying or any other hot work which produces sparks or slag that can be dropped or thrown or that causes heat to be transferred through a deck, bulkhead, or overhead to a location not visible to the hot work operator is being done.

3.3.1.2 Combustibles have not been removed or protected from heat conduction or ignition sources.

3.3.1.3 Equipment cannot be protected from falling sparks.

3.3.1.4 Openings in decks, bulkheads or overheads cannot be protected.

3.3.1.5 Ducts and conveyor systems cannot be blanked off, protected or shut down.

3.3.2 Each fire watch attending workers performing hot work shall be equipped with a fully-charged and operable fire extinguisher, and shall remain at the job site for at least 30 minutes after the completion of hot work and until released in accordance with 3.2.2.

3.3.3 Where several workers are performing hot work at one site, the fire watch shall have a clear view of and immediate access to each worker performing hot work.

3.3.3.1 No more than four workers shall be attended by a single fire watch.

3.3.4 In cases in which hot material from hot work may involve more than one level, as in trunks and machinery spaces, a fire watch shall be stationed at each level unless positive means are available to prevent the spread or fall of hot material.

3.3.5 In cases where hot work is to be performed on a bulkhead or deck, combustible material shall be removed from the vicinity of the hot work on the opposite side of the bulkhead, overhead, or deck, and a fire watch shall be posted at each location.

3.3.5.1 If multiple blind compartments are involved in any hot work job, fire watches shall be posted simultaneously in each blind area.

3.4 Locate oxygen, acetylene, or gas supply systems off the ship. Manifolds connected to pierside supply systems may be placed on board ships as long as they are located on a weather deck and equipped with a shutoff valve located on the pier. The pierside shutoff valve shall be in addition to the shutoff valve at the inlet to each portable outlet header required by 2.a.

3.4.1 Liquid oxygen (LOX) tanks used for fuel gas/oxygen operations shall be stored to prevent collisions by trucks, forklifts, falling objects, etc.

3.4.2 LOX tanks shall be staged in designated locations on the quay wall/pier to be determined jointly by the contractor/ship/SUPERVISOR.

3.4.3 When gas cylinders are required on board ship, they shall be located on the weather decks and shall be secured and in an upright position. The number of in-use cylinders shall be limited to those which are required for work in progress and which have pressure regulators connected to the cylinder valves. On board reserve gas cylinders shall not exceed one-half the number of in-use cylinders and shall be located in a remote area of the weather decks.

3.4.4 When not in use, gas cylinders on board shall have valves closed, lines disconnected, protective cover (cap) in place, and shall be secured and in an upright position.

3.4.4.1 Overnight and at the change of shifts, the torch and hose shall be removed from confined and enclosed spaces. Open end, fuel, gas, and oxygen hoses shall be immediately removed from confined or enclosed spaces when they are disconnected from the torch or other gas consuming device.

3.4.5 Upon completion of oxygen - fuel gas system hook-up, accomplish a pressure drop test in open air to include the torch, hoses, and gages.

3.4.5.1 Apply pressure to the system. Back off pressure by turning off valve supplying gases to the system. If the pressure on the gage

drops, a leak in the system exists. If the pressure on the gage does not drop, the system is tight.

3.4.5.2 After applying pressure, wait two or three minutes to ensure pressure does not drop.

3.5 Use fire retardant materials aboard or immediately adjacent to the ship for staging, screening, temporary covers, shelters, deck covering, and ventilation ducts.

3.5.1 Lumber shall be fire retardant in accordance with Category One, Type I, of MIL-L-19140. Plywood and staging boards shall be Category 2, Type II, of MIL-L-19140, and shall be marked with date of treatment, with exterior surfaces dyed or stained to a blue to blue green color range.

3.5.2 Storage of material aboard ship shall be limited to that which is required for work in progress. Material, including that stowed in bins that are placed and held temporarily on hangar decks, well decks, or tank decks shall not exceed eight feet in height. A 20-foot-wide lane shall be maintained the length of hangar decks to act as a fire break. Material shall occupy a deck space not to exceed 25-feet by 25-feet with adjacent six-foot-wide aisles on each side for ready hose line access.

3.5.3 Prior to bringing equipment or working material aboard ship, its crating and packing shall be removed. If the equipment or material may be damaged during handling, the crating and packing shall be removed immediately after the equipment or working material is brought aboard and taken ashore for disposal.

3.5.4 Trailers placed aboard the ship shall be equipped with an automatic or manual sprinkler system designed to provide 0.1 GPM per square foot of floor area and an audible alarm that will sound when sprinkler system is activated. Tool issue shacks or other walk-in enclosures placed aboard the ship shall be constructed of fire retardant material, provided with at least one fire extinguisher of appropriate size and class at each access. The enclosure shall be supported at least 10 inches above the deck.

3.5.4.1 Smoke alarms, approved by Underwriter's Laboratory, shall be installed in enclosures and shall be audible outside the enclosures.

3.5.5 Temporary lights shall have three-conductor cable, guard or shield, hook, and lamp holder. Exposed non-current-carrying metal parts of the fixture shall be grounded either through a third wire in the cable containing the current conductors, or through a separate wire which is grounded at the fixture's voltage source.

3.5.6 Flammable liquids with a flash point of 150 degrees Fahrenheit or less, including degreasers, solvents, and fuels shall be kept in safety cans when not in actual use or when left unattended. These liquids shall be limited to one day's supply for on board use.

3.5.7 Fueling of vehicles or transfer of fuel between containers shall be accomplished at designated sites on weather decks. Notify ship's Officer of the Deck prior to the fueling or transfer operation.

3.5.7.1 Provide a minimum of two dry chemical portable extinguishers, each with an Underwriters Laboratory rating of at least 60-B:C at fueling site.

3.5.8 Rigging of hoses, welding leads, and temporary lights shall be kept clear of the decks on temporary trees or brackets and be arranged to minimize tripping and other safety hazards and to allow free access through doors, hatches, and passageways.

3.6 Accomplish temporary access requirements as follows:

3.6.1 Temporary access cuts may be made in fire zone boundaries provided they are equipped with fume-tight steel closures when installed. Boundary degradation by use of temporary access cuts or passage of service lines shall be permitted only upon granting of a written waiver by the SUPERVISOR, in conjunction with the ship's designated representative, for a limited time. Submit four legible copies of a record of boundary openings and their locations to the SUPERVISOR and one additional copy to the ship's designated representative. Resubmit boundary opening data when any changes, additions, or deletions of boundary openings occur.

3.6.2 Ensure at least one unobstructed access on ships designed with three or less accesses to each main and auxiliary machine space and at least two unobstructed accesses on ships designed with four or more accesses to each main and auxiliary machinery space.

3.7 Accomplish a fire prevention and housekeeping inspection on a daily basis whenever work is in progress. The inspection shall be made jointly with the SUPERVISOR and the designated representative of the ship's Commanding Officer. A written report of the discrepancies and corrective action to be taken shall be prepared by the contractor and copies distributed to the SUPERVISOR and Commanding Officer of the ship within four hours after completion of the inspection.

3.8 Determine fire zone boundaries as follows:

3.8.1 The SUPERVISOR, Ship's Force, and the contractor shall establish fire zone boundaries prior to start of production work.

3.8.1.1 Existing transverse watertight, airtight, and fume-tight bulkheads shall be used as fire zone boundaries on ships built prior to the requirements for fire zones.

3.8.1.2 For ships having fire zones by design, the designated bulkheads shall be used as fire zones.

3.8.2 Fire zone boundaries shall be continuous through the vertical extent of the ship, from the keel up to the highest weather deck, excluding the superstructure.

3.8.2.1 For ships that have established fire zone boundaries that run from keel up through the superstructure, the fire zone boundaries as depicted on the ship's damage control diagrams shall be observed.

3.8.2.2 On aircraft carriers, provide for closing of hangar division doors in case of fire in the event division doors being repaired by the contractor are mechanically inoperative. As a minimum, rig chain falls to manually close doors in the event of fire. Exceptions shall be permitted only upon execution of a written waiver approved by the SUPERVISOR.

3.8.3 Ships under 600 feet in length shall have a minimum of two fire zone boundaries. Ships 600 feet and over in length shall have a minimum of three fire zone boundaries.

3.8.4 Indicate each fire zone by installing a sign adjacent to each entrance.

3.8.5 Service line(s) shall not be run through fire zone boundaries unless quick disconnects are installed in temporary service lines within 10 feet of the opening, door, or closure. The quick disconnects shall be marked with international orange tape and all service line(s) must be able to be secured and pulled back within three minutes. Fuel gas/oxygen/compressed gas hoses, steam lines, high pressure hoses (above 90 PSI), or hoses carrying hazardous/toxic/flammable materials shall not be run through fire zone boundaries unless expressly authorized in writing by the SUPERVISOR. Hose numbers or sizes shall not restrict free and easy access or closure of fire zone boundary doors.

3.9 Report verbally each accident/fire occurring on the vessel involving contractor/subcontractor personnel to the SUPERVISOR as soon as management becomes aware of such an event.

3.9.1 Provide a formal written report of the event to the SUPERVISOR within 24 hours of each accident requiring medical treatment, and each fire. The written report shall contain the name and ID number of each injured person, date and time of accident/fire, extent of each personal injury or property damage, contractor/subcontractor name, Job Order, type of accident/fire, location of event (ship name and hull number, space, compartment), and a brief description of the event including occurrences leading up to the accident/fire.

4. NOTES:

4.1 Recognizing a conflict between the definition of hot work in 2.a and 2.d, in instances where certification is required by a Certified Marine Chemist, the decision of the Certified Marine Chemist will prevail.

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-19 |
DATE: 14 SEP 2000 |
CATEGORY: I |

1. SCOPE:

1.1 Title: Provisioning Technical Documentation (PTD); provide

2. REFERENCES:

a. 9090-1500, Policies and Procedures Manual, Provisioning, Allowance, and Fitting Out Support (PAFOS), Chapter 4, Provisioning

b. Interactive Computer Aided Provisioning System (ICAPS)

3. REQUIREMENTS:

3.1 Provide Provisioning Technical Documentation (PTD) in accordance with 2.a, for all new and/or modified Contractor Furnished (CF), Allowance Parts List (APL) worthy, Hull, Mechanical, and Electrical (HM&E) and/or Electronics components. PTD shall include a Provisioning Parts List (PPL) and Engineering Data for Provisioning (EDFP).

3.1.1 PPL shall identify each part subject to failure/replacement, or required for maintenance of the component, and shall include the following MIL-PRF-49506 Data Product Deliverables (DPDs):

3.1.1.1 0870 Provisioning Contract Control Number (PCCN)

3.1.1.2 0890 Provisioning List Item Sequence Number (PLISN)

3.1.1.3 0370 Indenture Code for non-electronic components

3.1.1.4 1030 Reference Designation for electronic components

3.1.1.5 0140 Commercial and Government Entity (CAGE) Code

3.1.1.6 1050 Reference Number

3.1.1.7 0480 Item Name

3.1.1.8 0930 Quantity Per Assembly (QPA)

3.1.1.9 0950 Quantity Per End Item (QPEI)

3.1.1.10 1470 Unit of Issue (UI)

3.1.1.11 1500 Unit of Issue Price (UI Price)

3.1.1.12 S008 Component Identification Data (CID): Enter all available data

3.1.2 Ship Level Provisioning Parts List (SLPPL) shall include items determined not to be APL worthy in accordance with Appendix G of 2.a, and shall include the MIL-PRF-49506 DPDs identified in 3.1.1.

3.1.3 Statements of Prior Submission (SPS) shall be submitted in lieu of PTD, whenever PTD which meets the requirements of the contract has previously been furnished to the Government. An SPS certifies that all replacement parts are identical to those provided by the previously furnished PTD. The SPS shall apply to the end item or to any component thereof and shall include:

3.1.3.1 End item part number

3.1.3.2 Manufacturer's CAGE

3.1.3.3 Manufacturer's drawing number and revision

3.1.3.4 RIC (APL number)

3.1.3.5 Certification statement certifying that all replacement parts are identical to those identified by the APL or previously furnished PTD

3.1.4 If there are any changes to replacement parts, a PTD package (PPL and EDFP) that identifies the changes shall be submitted in lieu of an SPS.

3.2 An EDFP shall be provided with each PPL and SLPPL submittal.

3.3 Provide a Contractor Furnished Material (CFM) report and a copy of the Purchase Order and receipt document for each procurement of equipment or components for which PTD or SPS is required. The report shall include Work Item Number, Alteration Number, Drawing and Piece Number, Description, Quantity, Purchase Order Number, and required delivery date.

3.3.1 Submit four legible copies of the CFM report to the SUPERVISOR within 10 days after start of availability and provide subsequent monthly updates to the SUPERVISOR.

3.4 Submit data for PPLs and SLPPLs via 2.b, or in accordance with the ICAPS compatible format identified in Appendix K of 2.a. Submit SPSs in electronic format (spreadsheet or document) via 3.5-inch diskettes, compact

disks, or electronic mail within 20 days after release of the contractor's component or equipment purchase order.

3.4.1 Submit PTD via the SUPERVISOR to:

NSWCCD-SSES
Attn: Code 9451
5001 S. Broad St.
Philadelphia, PA 19112-5083
E-mail: Simmonscr@nswccd.navy.mil

4. NOTES:

4.1 EDFP is required for all systems or equipment that are acquired for Navy use and for which PTD is being acquired. EDFP is the data acquired to support Line Material Item supportability analysis. It is the technical data that provides definitive identification of dimensional, material, mechanical, electrical, or other characteristics adequate for provisioning of the support items of the end article(s) on contract. EDFP consists of but is not limited to data such as specifications, standards, drawings, photographs, sketches and descriptions, and the necessary assembly and general arrangement drawings, schematics, drawings, schematic diagrams, wiring and cable diagrams, etc. This data is necessary for the assignment of Source, Maintenance, and Recoverability (SMR) codes to assignment of Item Management Codes, prevention of proliferation of identical items in the Government inventory, maintenance decisions, and item identification necessary in the assignment of a National Stock Number (NSN).

4.2 2.a is available at:

http://www.nslc.navsea.navy.mil/nslcprod/pafos.nsf

4.3 2.b is available for download from:

http://icaps.nctsjax.navy.mil/icaps/icapswin.htm

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-21 |
DATE: 14 SEP 2000 |
CATEGORY: I |

1. SCOPE:

1.1 Title: Logistics and Technical Data; provide

2. REFERENCES:

a. None.

3. REQUIREMENTS:

3.1 Complete Attachment A for all Government Furnished Material (GFM) and Contractor Furnished Material (CFM) equipment or components installed or permanently removed. This applies to all configuration changes, including alterations and repairs.

3.1.1 Provide individual Attachment A forms for each piece of equipment or component.

3.1.2 Submit four legible copies of Attachment A to the SUPERVISOR no later than five working days after installation or removal of GFM and CFM equipment or components.

3.2 Submit all copies of technical manuals, Maintenance Index Pages (MIP), and Maintenance Requirements Cards (MRC) received with GFM and CFM equipment to the SUPERVISOR no later than five working days after receipt of equipment.

3.3 Data received in 3.2 required for installation and testing will be provided to the contractor.

3.4 Maintain an account of weight and moment changes resulting from work accomplished during the availability as follows:

3.4.1 Weights removed and exact location of removal

3.4.2 Weights added and exact location of addition

3.4.3 Relocations shall be treated as a removal and an addition.

3.5 Submit four legible copies of a report listing the results of the requirements of 3.4 to the SUPERVISOR.

4. NOTES:

4.1 The technical point of contact for the requirements contained in this NAVSEA Standard Item is the local NSA logistics representative.

4.2 Weight and moment changes in 3.4 are to reflect alterations made as a result of ShipAlts and repair Work Items.

ATTACHMENT A
EQUIPMENT/COMPONENT LOGISTICS AND TECHNICAL DATA
NAVSEA STANDARD ITEM 009-21

DATE: _____

ALL DATA FIELDS ARE MANDATORY FILL. WRITE "NONE" WHERE NOT APPLICABLE.

SHIP NAME: _____ HULL: _____

SPEC PKG. NO.: _____ AUTHORITY (WORK ITEM): _____

ACTION: _____ RIC: _____

SERIAL NUMBER: _____

VALVE MARK/ELECTRICAL SYMBOL NUMBER: _____

QUANTITY: _____ LOCATION: _____

RIC NOMENCLATURE: _____

TM(S) RECEIVED: _____

PMS MIP/MRC'S RECEIVED: _____

OBRP(S) RECEIVED: _____

INSTALLATION DRAWING NO: _____

RIC CHARACTERISTICS:

1. MFR - _____

2. MFR DWG - _____

3. MFR ID - _____

4. NSN - _____

CIRCLE ONE: GFM or CFM

COMMENTS: _____

_____

REPORTING CONTRACTOR: _____

PRINTED NAME: _____

SIGNATURE: _____ PHONE: _____

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-24
DATE: 14 SEP 2000
CATEGORY: I

1. SCOPE:

1.1 Title: Isolation, Blanking, and Tagging Requirements; accomplish

2. REFERENCES:

a. Standard Items

b. S0400-AD-URM-010/TUM, Tag-Out Users Manual

c. 845-4612172, Hydrostatic Test Blanks

d. MIL-STD-777, Schedule of Piping, Valves, Fittings, and Associated Piping Components for Naval Surface Ships

e. 802-5959353, MIL-STD-777 Modified for DDG-51 Class, Schedule of Piping, Valves, Fittings, and Associated Piping Components

3. REQUIREMENTS:

3.1 Notify the Commanding Officer's designated representative in writing of equipment, systems, circuits, components, piping, and valves that require isolation to accomplish work in the Work Item before any work is started on each individual Work Item so that tag-outs can be accomplished as required by ship's instructions***, accomplishing the requirements of 2.b***.

3.1.1 Ship's Force personnel will position equipment ***to achieve required isolation, deenergization, and depressurization,*** and install tags when tag-out of equipment, systems, circuits, components, piping, or valves is required.

3.1.2 Accomplish the requirements of 3.1.1 for unmanned craft and barges.

3.2 Verify use of sufficient tags to prevent operation of equipment, systems, circuits, components, piping, or valves from all stations that could exercise control.

3.2.1 Ensure the isolation, deenergization, and depressurization of mechanical, electrical, electronics, and pressure systems has been accomplished.

3.2.2 A contractor's designated representative shall legibly print name, badge number, identify company, and sign on a ship's tag-out record sheet and tags after installation, indicating repair activity satisfaction with the completeness of the tag-out and alerting personnel removing tags that contractor concurrence is required.

3.2.2.1 Submit one legible copy of a program to be utilized to train contractor's designated representatives in accordance with Paragraph 1.4 of 2.b.

3.3 Post warning signs and barriers and install temporary positive means to prevent closure or movement of components that create a safety hazard at hull and deck openings.

3.4 Install and maintain blanks, painted blaze orange, on piping, valves, equipment, ventilation system, and components being stored, installed, or removed, and on openings aboard ship resulting from the removals, immediately upon each removal. The use of cloth, polyvinyl sheet, paper, and tape as blanks is prohibited.

3.4.1 Blanks installed on equipment, valves, and piping openings in systems which are subject to pressure shall be in accordance with 2.***c*** to withstand maximum system pressure and secured in place with gaskets and fasteners in accordance with 2.***d*** and 2.***e***.

3.4.2 Blanks installed on openings in equipment, valves, and piping systems not subject to pressure shall preclude entry of foreign material and protect flanges and threaded areas.

3.4.3 Remove blanks installed in 3.4 immediately prior to installing piping, valves, or equipment.

3.4.4 Accomplish the requirements of 009-77 of 2.a for installation of cofferdam over hull openings/penetrations prior to removing or installing equipment, valves, or piping when the contractor elects and is authorized to accomplish work which results in a loss of two-valve protection.

3.5 Install identification tags on each removed piping section, valve, ventilation system, and equipment indicating the location, system, ship's name and hull number, and Work Item number prior to removal from system. Tags must endure repair process.

3.6 Tape and insulate cable ends disconnected from equipment to prevent shorting out or grounding in the event a system is accidentally energized.

3.6.1 Tag each cable indicating circuit number and location of panel and fuse box energizing cable.

3.6.2 Install dust covers on equipment connectors following disconnection of cable plugs.

3.7 Do not disturb, modify, remove, energize, or operate any switch, fitting, valve, or other equipment affixed with a ship's isolation or DANGER tag.

3.7.1 Do not remove or relocate ship's isolation or DANGER tags.

3.7.2 Verify removal and clearance of all isolation or DANGER tags in accordance with ship's instruction before the equipment is operationally tested or operated.

3.8 Notify the Commanding Officer's designated representative immediately when the contractor's work is complete and the system, piping, or circuit is ready for activation to accomplish removal of tags.

3.8.1 The contractor's representative shall sign the ship's tag-out log sheet to show concurrence in tag removal and clearance before removal.

3.8.2 Ship's Force personnel will remove tags after contractor's concurrence and clearance has been recorded and removal is authorized by the Commanding Officer's designated representative.

3.8.3 Accomplish the requirements of 3.8.2 for unmanned craft and barges.

4. NOTES:

4.1 When a component is tagged more than once, a DANGER tag takes precedence over other tags.

4.2 The SUPERVISOR will be the designated representative for unmanned craft and barges.

4.3 The term "Shipyard(s)" as used in 2.b means a public Naval Shipyard or a NAVSEA 04XQ approved new construction shipyard.

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-32 |
DATE: 14 SEP 2000 |
CATEGORY: II |

1. SCOPE:

1.1 Title: Cleaning and Painting Requirements; accomplish

2. REFERENCES:

a. 29 CFR 1915, Subparts C and Z, OSHA

b. S9086-VD-STM-010/020/030/CH-631, Volumes 1, 2 and 3, Preservation of Ships in Service

c. Systems and Specifications, Steel Structures Painting Manual, Volume 2

d. S9086-VG-STM-010/CH-634, Deck Coverings

e. S9086-CN-STM-010/CH-79, Volume 2, Damage Control - Practical Damage Control

f. S9086-RK-STM-010/CH-505, Piping Systems

g. ASTM D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

3. REQUIREMENTS:

3.1 Submit one legible copy of a time schedule prior to the start of preservation operations for the following coating systems (including stripe coating where applicable):

TABLE	LINE
One	All
2	All except 10
4 through 8	All
9	One through 4
10	4 and 11
11	All
12	All
15	All

TABLE	LINE
16	All
17	Line One

3.2 Provide a written notice to the SUPERVISOR and the Commanding Officer's representative of potential exposure of personnel to toxic or hazardous substances.

3.2.1 Post the notice at the ship's Quarterdeck or other designated location for each job or separate area at least four hours, but not more than 24 hours, prior to the start of work. The notice shall contain the following information:

3.2.1.1 Ship's name and hull number

3.2.1.2 Work Item number

3.2.1.3 Compartment or frame number

3.2.1.4 Identification of hazard

3.2.1.5 Date and time of work process

3.2.1.6 Identification of engineering and work practice controls

3.2.2 Deliver notification of work planned over a weekend or Monday following that weekend to the Commanding Officer's representative not later than 0900 on the Friday immediately preceding that weekend.

3.2.3 Deliver notification of work planned on a federal holiday and on the day following the federal holiday to the Commanding Officer's representative not later than 0900 on the last working day preceding the federal holiday.

3.3 Submit material certification of abrasive blast media conforming to MIL-A-22262 prior to blasting. The abrasive blast medium must be listed on the Qualified Products List (QPL) QPL 22262, or have written notification from NAVSEA 03Q that it meets the requirements of MIL-A-22262.

3.4 Record and maintain records in accordance with Section 11 of 2.b and Paragraph 634-3.35 of 2.d, containing the required information on preservation of freeboard, and hangar, flight, catapult, and vertical replenishment decks, chain lockers, underwater hull surfaces of the ship, and interior surfaces of tanks, voids, cofferdams, well deck overheads, and bilges, and including the following:

3.4.1 Surface preparation method, including name of abrasive and QPL 22262 revision number from which the product was purchased, or copy of NAVSEA 03R42 product approval letter

3.4.2 Ambient and metal surface temperatures, relative humidity, and dew point at a minimum of four-hour intervals during painting process. Information for environment shall be recorded from conditions on-site, in close proximity to the structure.

3.4.3 Name of paint/non-skid, manufacturer, batch number, and date of manufacture and expiration

3.4.4 Material product data sheets for each proprietary coating used

3.4.5 Surface conductivity or chloride measurements

3.4.6 Elapsed time between coats

3.4.7 Dry film thickness for the total system

3.4.8 Submit four legible copies of recorded information to the SUPERVISOR upon completion of each Work Item.

3.4.9 Submit four legible copies of the manufacturer's warranty documents to the SUPERVISOR when specified in the Job Order.

3.5 Consider marine coatings to contain heavy metals (e.g., lead, cadmium, or chromium), hexavalent chromium, crystalline silica and/or other toxic or hazardous substances.

3.5.1 Submit four legible copies of the laboratory analysis listing results of personnel monitoring to the SUPERVISOR within 10 working days of any such testing.

3.5.2 Submit four legible copies of a report when no personnel monitoring was conducted, which provides the basis for such a decision not to engage in personnel monitoring, e.g., insufficient time (less than 7 hours) is available to conduct personnel air monitoring.

3.6 Accomplish application or removal of marine coatings in accordance with federal, state, and local laws and regulations.

(V) or (I)(G) "CLEANLINESS" (See 4.4 for criteria.)

3.6.1 Accomplish degreasing/cleaning prior to surface preparation to ensure removal of surface contaminants, such as sea salts, grease, oil, and other petroleum products.

3.6.2 Accomplish the safety precautions as specified in 2.a, 2.b, and the Job Order during surface preparation and the application or removal of marine coatings.

3.6.3 Blasters, painters, and coating inspectors shall be certified in accordance with Section 11 of 2.b.

3.6.4 Select the specific requirements of 2.b, 2.c, and 2.d listed in the application of Tables One through 18 of this item for determining the type of surface preparation required and coating system options that are available for use in accomplishing the work specified unless otherwise directed in the Work Item.

3.6.5 For non-skid coatings, surface preparation methods outlined in Paragraph 634-3.28 of 2.d must be strictly followed.

3.6.6 Limit surfaces being prepared for preservation in size to an area which can be coated prior to the occurrence of flash rusting and/or oxidation. Remove any flash rust prior to painting, except as follows:

3.6.6.1 Surfaces cleaned by hydroblasting or waterjetting shall meet the applicable Standard for flash rust.

3.6.7 Abrasive blast equal to an SSPC-SP-10 of 2.c and prime steel and aluminum plates, shapes, and ferrous piping prior to shipboard installations except in the areas where weld joints remain to be accomplished, or unless specified otherwise in the invoking Work Item.

3.6.8 For disturbed and/or partially preserved or inaccessible areas, the minimum surface preparation shall be that shown in the applicable Tables, except that an SSPC-SP-11 is acceptable for areas originally requiring an SSPC-SP-10 or SSPC-SP-12.

3.6.8.1 Disturbed areas are defined as any surface that requires cleaning and/or painting due to existing paint finish being damaged in the accomplishment of work specified by the Job Order.

3.6.8.2 Deviations to the requirements may be authorized by the SUPERVISOR based on size, location, application, or severity of condition of coating system being applied.

3.6.8.3 Closure plates/hull accesses and their associated welds will not be considered a disturbed surface and shall be cleaned and painted by the applicable table.

3.6.9 Feather edges of well adhered paint remaining after cleaning.

3.6.10 Clean, prior to painting, insulation and lagging free of foreign matter and contaminants that would prevent adherence of paint.

3.6.11 Clean prepared and previously painted surfaces free of foreign matter which will affect adherence of paint coatings. Inclusions such as dust and debris in the paint film shall be removed prior to the application of the next coat.

3.6.12 Remove foreign matter and debris resulting from cleaning operations.

3.6.13 Record and restore existing painted labels, compartment designations, hull markings, and other painted information which will be removed or covered during cleaning and painting operations.

3.6.14 Install masking material for protection of equipment and items not to be painted during preservation. Shipboard items not to be painted are listed in Paragraphs 631-8.22 of 2.b.

3.6.15 When surface profile requirements of the manufacturer's instructions are greater than that specified in this item, they shall supersede this item.

(V) or (I)(G) "SURFACE PREPARATION" (See 4.4 for criteria.)

3.6.16 Verify surface preparation for the coating systems specified in 3.1.

(I)(G) "CONDUCTIVITY OR CHLORIDE MEASUREMENT"

3.6.17 Accomplish conductivity or chloride measurements for the following Tables and Lines:

TABLE	LINE
One	All
2	All except 10
3	15 and 16
4 through 8	All
9	1 through 4
10	4 and 11 through 13
11	All
12	All
15	All
16	All
17	Line One

3.6.17.1 Accomplish surface chloride checks or conductivity checks using available field or laboratory test equipment on the freshly prepared surface. Five determinations shall be conducted every 1,000 square feet. Areas less than 1,000 square feet shall have five determinations made. For immersed applications, such as tanks and bilges, chloride measurements shall not exceed 3 ug/cm^2 (30 mg/m^2) nor shall the conductivity measurements

exceed 30 microsiemens/cm. For non-immersed applications, chloride measurements shall not exceed 5 ug/cm^2 (50 mg/m^2) nor shall the conductivity measurements exceed 70 microsiemens/cm. If the chloride or conductivity measurements exceed the respective values, water wash the affected areas with fresh water. Dry the affected areas and remove all standing water. Accomplish surface chloride and conductivity checks on affected areas. Repeat step until satisfactory levels are obtained. Flash rust/surface oxidation is prohibited for tanks, floodable voids, non-skid and well deck overhead applications and must be removed. All other areas shall not exceed light, tightly adherent flash rust as described in NOTE (22).

3.7 Store paint in a cool, dry place, do not expose to freezing temperatures or direct sunlight, and in accordance with manufacturer's instructions. Storage of non-skid coatings shall be in accordance with Table 634-3-4 of 2.d.

3.8 Coating systems for disturbed areas shall be applied in accordance with the applicable tables.

3.8.1 For commercial underwater hull coating systems including anti-corrosive paints and anti-fouling paints, the manufacturer's primer must be used with his anti-fouling coating. No substitution is allowed.

3.8.1.1 Successive coats of anti-corrosive paints shall be of a contrasting color.

3.8.2 Utilize water-based latex fire retardant paints in preference to chlorinated alkyd based fire retardant paints. Such paints are available under MIL-PRF-24596 or a Naval Sea Systems Command (NAVSEA) approved product (Formula 25A). Accomplish the surface preparation and coating application requirements of 2.b when using water-based paints.

3.8.3 Apply the first coat of MIL-P-15931 (Formulas 121/129) or MIL-PRF-24647 anti-fouling paint when the last coat of epoxy paint is still slightly tacky (approximately four to six hours after paint application). Tacky is defined as that curing (drying) stage when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger. If the epoxy is hard (usually eight hours after application), apply a tack coat of epoxy paint one to two mils WFT over previously painted surfaces. Allow to dry four hours and apply the anti-fouling paint. Above also applies to application of any non-epoxy system over an epoxy coating.

3.8.4 Mix and apply the approved proprietary coatings in accordance with manufacturer's instructions, except for requirements when invoked for surface preparation and minimum dry film thickness as specified in Tables One, 4, 5, 6, 7, and 15. The requirements of 3.8.3 also apply to manufacturers' proprietary coatings.

3.8.5 Mix and apply the Navy Polyamide Epoxy MIL-DTL-24441 coatings in accordance with the following, except the dry film thickness shall be as specified in Tables One through 11, 14, and 15. The MIL-DTL-24441 coatings mixing ratio is one-to-one by volume. The components of the various formulas are not interchangeable. Blend each component thoroughly prior to mixing the components. After mixing equal volumes of the two components, the mixture must be thoroughly stirred, and the stand-in times listed below must be observed.

3.8.5.1 Stand-in time (induction time) is defined as the time immediately following the mixing of the components A and B during which the critical reaction period of these components is initiated and is essential to the complete curing of the coating. During stand-in time the mixture must be thoroughly stirred at least once every 20 minutes to avoid hot spots caused by localized overheating from the chemical reaction.

Surface (Temperature at Job Site) Degrees Fahrenheit	Stand-In Time in Hours (as required)
35 to 50	2 hours at 70 degrees Fahrenheit (paint temperature)
50 to 60	2 hours at job site temperature
60 to 70	1 hour to 1-1/2 hours at job site temperature
70 and Above	1/2 to 1 hour at job site temperature

3.8.6 Apply stripe coat to weld seams, cutouts, corners, edges, and butts in tanks, bilges, and well deck overheads in accordance with the coating manufacturer's instructions. Stripe coat the edges, weld seams, foot/hand holds (including inaccessible areas, such as back side of piping, under side of I-beams), and other mounting hardware (non-flat surface) after the prime coat has dried. The stripe coat shall encompass all edges, as well as at least one-inch border outside each edge. Stripe coating applied shall be neat in appearance, minimizing extra thickness applied to edges, as well as streaks and drops of paint. Stripe coating should be done whenever represerving. The stripe coat shall encompass all edges as well as at least a one-inch border outside each edge and weld.

3.8.6.1 Apply one stripe coat after the primer (or mist coat after inorganic zinc) for MIL-PRF-23236 coatings.

3.8.6.2 Apply one stripe coat after the primer for MIL-DTL-24441 coat system and another stripe coat after the intermediate coat, but prior to final coat. For a two-coat system, only one stripe coat is required.

(V) or (I)(G) "STRIPE COAT INSPECTION" (See 4.4 for criteria.)

3.8.6.3 Each stripe coat shall be unthinned paint of the specified paint system and shall be a different color from both the paint over which it is being applied and the next coat in the system. First coat inspection shall be conducted prior to stripe coat application.

3.8.7 Drying time between coats of specified coating for potable and feedwater tanks shall be a minimum of 48 hours at a minimum temperature of 70 degrees Fahrenheit, using heated air if necessary to maintain temperature. Ventilation shall be sufficient to ensure continuous flow of air through the tanks with at least one complete air change every four hours. Mixing and stand-in times (induction times) shall be in accordance with manufacturer's instructions.

3.8.8 Cure potable and feedwater tank coatings for at least seven consecutive days prior to filling with water. Maintain a temperature of 70 degrees Fahrenheit within the tanks. Ventilation shall ensure continuous flow of air with a minimum of one complete air change every four hours.

3.8.8.1 Freshly painted potable water tanks shall be rinsed at least twice with fresh water to ensure cleanliness of tank.

(I)(G) "INSPECT TANK"

3.8.8.2 Inspect tank for cleanliness and coating integrity.

3.9 Overcoating of MIL-DTL-24441 with MIL-DTL-24441:

3.9.1 If less than 7 days has elapsed since the application of the prior coat, the next coat may be applied after visual inspection to confirm the absence of grease, dirt, salts, or other surface contaminants. If surface contamination is suspected as a result of visual inspection or for other reasons, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse. The next coat of MIL-DTL-24441 shall be applied after surfaces are completely dried.

3.9.2 If more than 7 days but less than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash followed by a fresh water rinse. Ensure the surface has fully dried, then apply a tack coat (one to 2 mils WFT) of the last coat applied or Formula 150. The tack coat shall be allowed to cure (dry) to when a fingernail pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger, then apply the next full coat of the system.

3.9.3 If greater than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse. After allowing the surface to dry, the surface shall be lightly abraded using a brush-off abrasive blast

(preferred), power sanding, or hand sanding, then apply the next full coat of the system.

3.10 Overcoating of MIL-DTL-24441 with non-MIL-DTL-24441 (proprietary) topcoats:

3.10.1 The non-MIL-DTL-24441 topcoat shall be applied before the MIL-DTL-24441 base coat has hardened (while still tacky as defined in 3.8.3).

3.10.1.1 If the MIL-DTL-24441 base coat has hardened but less than 30 days has elapsed, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse. Ensure the surface has fully dried, then apply a tack coat (one to 2 mils WFT) of the last coat applied or Formula 150. The tack coat shall be allowed to cure (dry) to when a fingernail pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger, then apply the next full coat of the non-MIL-DTL-24441 system.

3.10.1.2 If greater than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse. After allowing the surface to dry, the surface shall be lightly abraded using a brush-off abrasive blast (preferred), power sanding, or hand sanding, then apply a full coat of MIL-DTL-24441. Let this coat dry to a tacky state as defined in 3.8.3, then apply the next full coat of the non-MIL-DTL-24441 system.

3.11 Overcoating of non-MIL-DTL-24441 (proprietary) epoxy coatings:

3.11.1 Follow the manufacturer's direction for the allowable overcoat window, not to exceed 30 days. The 30-day maximum may be extended beyond 30 days if specifically approved in writing by NAVSEA. Where the basecoat and topcoat are provided from different manufacturers, the term "manufacturer" refers to the manufacturer of the basecoat.

3.11.1.1 If either the manufacturer's recommendation or the 30-day window (or a specific extension approved by NAVSEA) has been exceeded, the coating shall be reactivated by either following the manufacturer's recommendaiton for re-activating the surface or cleaning the entire surface using a fresh water and detergent wash, followed by a fresh water rinse. After allowing the surface to dry, the surface shall be lightly abraded using a brush-off abrasive blast (preferred), power sanding, or hand sanding.

3.11.1.2 Apply the next full coat of the proprietary system, if used. If MIL-DTL-24441 is being used for the topcoat, apply one full coat of MIL-DTL-24441 Formula 150, let dry to a tacky state as defined in 3.8.3, then apply one full coat of MIL-DTL-24441 of the desired color.

3.11.2 Comply with the time requirements of 2.d for application of non-skid over primer coat.

(V) or (I)(G) "FILM THICKNESS" (See 4.4 for criteria.)

3.12 Measure dry film thickness of each coat applied for the coating systems listed in 3.4.

3.12.1 Dry film thickness readings shall not be taken in areas where stripe coatings have been applied.

3.12.2 Dry film thickness for each coat shall be taken in accordance with Method PA-2 of 2.c.

3.12.3 Wet film thickness (WFT) readings are required in lieu of dry when the system requires application of a tack coat. Refer to film thickness conversion table in 2.c. Note: WFT equals DFT divided by percent solids by volume (when percent solids by volume is expressed as a decimal, i.e., 60 percent equals 0.60).

3.12.4 For underwater hull paint systems, record a minimum of 30 DFT readings per 1,000 square feet. Baseline DFT readings of underwater hull paint system shall be taken after final coat is applied and Quality Assurance spot readings in accordance with 2.c are completed.

3.12.5 Apply an additional coat of any single coat of a multiple coat system when that coat measures less than its specified dry film thickness (DFT). Multiple coats shall be of contrasting color. Dry film thickness of each coat, including an additional coat if applied, shall not exceed the specified maximum thickness for each coat.

(V)(G) "HOLIDAY INSPECTION" (See 4.4 for criteria)

3.13 For Tables 4, 5, and 6, perform a visual holiday check on the final tank or void coating system. Any holiday (defect to bare metal) found shall be marked and touched up in accordance with 3.4.

3.13.1 Remove masking material and paint overspray after cleaning and painting operations are completed.

3.14 Preservation Process Instructions (PPIs), when invoked, provide detailed instructions and procedures for specific ship preservation evolutions to include safety precautions, surface preparation, selection of appropriate coating systems, and third-party quality assurance check points. See new Section 12 of 2.b for details. Section 12 is provided in ACN 5A (Control Number N00024-00-FJB25).

4. NOTES:

4.1 Thickness' specified in Tables One through 18 are DFT and are minimum requirements, unless otherwise specified.

4.2 Total DFT encountered during removal may exceed specified table thickness'.

4.3 Total removal of ablative coating is not required in accordance with 631-5.2.3.3 of 2.b. The Work Item will specify the degree of removal.

4.4 The paragraphs referencing this note are considered an (I)(G) if the inspection/test is on a critical surface as listed in 3.4. If the inspection/test is not on a critical surface as listed in 3.4, then the paragraph is considered a (V).

4.5 The word "new" in "new and disturbed surfaces" refers to all material installed on the ship by the contractor regardless of source.

NOTES OF TABLES ONE THROUGH 18

(1) The following items apply to MIL-DTL-24441 coatings:

a. MIL-DTL-24441 polyamide epoxy paints do not require thinning prior to application. If desired, the low temperature application properties can be improved by the addition of 10 percent by volume of one-to-one mixture of butyl alcohol and high flash naphtha or paint thinner TT-P-291. When sprayed without thinning at the recommended thickness, the paints have no tendency to sag. Apply a thinned mist coat of one to 2 mils WFT over existing paint.

b. When MIL-DTL-24441 polyamide epoxy paints are used at a work site having temperatures below 50 degrees Fahrenheit, it is essential that the stand-in period be accomplished in a warm area (70 degrees Fahrenheit) to ensure that the coating will cure.

c. Exterior side shell and underwater body painting at surface temperatures between 25 degrees Fahrenheit and 35 degrees Fahrenheit is not recommended, but can be approved by the SUPERVISOR provided the following conditions are met:

(1) Ambient temperature must be a minimum of 5 degrees Fahrenheit above the dew point.

(2) Hull surfaces must be absolutely dry and free of any signs of frost and ice.

(3) Drying time will be increased by four hours for a total of eight hours drying time per coat.

(4) No painting is allowed below surface temperature of 25 degrees Fahrenheit.

(5) Paint shall be stored at 70 degrees Fahrenneit for 24 hours before use.

d. Painting shall not be accomplished unless surface is dry and surface temperature is at least 5 degrees Fahrenheit above the dew point.

e. Approximate temperature of paint components in storage should be estimated in order to judge the amount of stand-in time to allow and the pot life that might be expected. The work site application temperature will greatly affect the time required for the paint to cure, and must be considered in estimating batch size, stand-in time, and cure time.

f. Paints should be sprayed using standard spray guns with applicable spray-pot pressures. The spray guns should be equipped with a middle-size (D) needle, nipple, and nozzle set-up. Both conventional and airless equipment are suitable for use with these paints.

g. Catalyzed paints should not be allowed to stand in the spray equipment for extended periods, especially in the sun (increasing temperature cures the paint more rapidly). The pot life of the paint mixture (Components A and B) is six hours at 73 degrees Fahrenheit.

h. Epoxy primers applied in the vicinity of arasive blasting must be sheltered from airborne contaminants. Abrasive particles trapped in wet paint films are a source of premature blistering and film failure.

(2) Boottop - The boottopping is defined as the black area from minimum load waterline at which the ship is expected to operate to 12 inches above the maximum load waterline. The black paint is an anti-fouling paint conforming to MIL-PRF-24647 for a 5 to 10-year service life, or MIL-P-15931 for 2-year service life. Haze gray shall be carried to the black anti-fouling paint which marks the upper boottop paint.

(3) Ameron Bar-Rust 235 can be used for cold weather application below 40 degrees Fahrenheit. Apply at 5 mils DFT (minimum) per coat.

(4) Use accelerator FCA 321 in lieu of FPA 327, or KHA414 in lieu of KHA062, for cold weather application below 40 degrees Fahrenheit.

(5) Use Hempadur 4514 in lieu of 4515 for cold weather applications below 50 degrees Fahrenheit.

(6) A minimum of 24 hours drying time shall be allowed after last coat prior to undocking. For 7 year service life, increase each anti-fouling paint coat to 6 mils DFT for a total of 12 mils DFT. For 10 year service life, apply one additional coat of anti-fouling paint for 3 alternating coats at 5 mils DFT each, a total of 15 mils DFT.

(7) To ensure a continuous primer base, areas adjacent to those being coated with proprietary primer and non-skid listed on QPL's for MIL-PRF-24667, MIL-PRF-23003, or MIL-PRF-24483, shall be coated with the same primer and compatible topcoat.

(8) For horizontal surfaces, intermediate coats are not needed when non-skid primer qualified to the QPL is applied with the non-skid system.

(9) DOD-E-24607, chlorinated alkyd, may also be used. DOD-E-24607 must be used if surface and ambient temperature are less than 50 degrees Fahrenheit.

(10) For MIL-PRF-23236, Types I, III, or IV shall be used in fuel/salt water ballast service. Qualified paint systems additionally designated Class One may be used with the qualified shop primer - this is generally a new construction issue. Qualified paint systems designated Class 2 are only for salt water ballast tanks - no exposure to fuels or other hydrocarbons is permitted.

(11) Coating to be applied in accordance with data sheet. The maximum coating thickness will be the minimum plus 150 percent of minimum, i.e., for 8 mils this will be 8 plus 12 (for maximum allowable of 20 mils).

(12) NOTE DELETED.

(13) Anchors below lower boottopping limit shall be painted in accordance with normal underwater hull anti-corrosion/anti-fouling system.

(14) For MCM, and MHC ships, use black walnut shells conforming to A-A-1722, Type II, or garnet MIL-A-21380 or garnet MIL-A-22262, for abrasive blast media.

(15) Anchor chain and detachable links shall be marked and color coated in accordance with NSTM Chapter 581 unless otherwise directed by the Work Item.

(16) Apply one mist coat (1-2 mils) of Ameron PSX 700 after blast and prior to remaining coats where invoking Work Item requires anchor chain inspections prior to preservation.

(17) Colors shown in Chapter 631, Tables 631-8-13 and 631-8-14, shall be specified by TYCOM or ship's Commanding Officer per Chapter 631-8.23.4.

(18) Restore each compartment marking in accordance with 2.e and 2.f.

(19) MIL-PRF-24667 and MIL-PRF-23003 non-skid systems shall be applied as as complete systems (primer, intermediate coat when MIL-PRF-24667, Type III, coatings are invoked, non-skid, and color topping) from the same manufacturer except for the color topping. When a manufacturer does not have approved color topping, use another compatible manufacturer color topping. MIL-PRF-24667, Type I, when required, shall be specified in the invoking Work Item. MIL-PRF-23003 Qualified Product List now only specifies a flexible non-skid coating. Boundaries of areas receiving

non-skid not specified by specific ship's drawings shall be in accordance with NSTM Chapter 634.

(20) Prior to accomplishing painting of wooden underwater hulls, allow the hull to dry to a moisture content of 15 percent. Readings shall be taken with an electronic moisture meter, Sovereigh Moisture Master or equal. Cover grounding plates and zincs prior to painting.

(21) Blasted surface metal must be degreased following walnut shell blasting. Even traces of residual oil will degrade coating adhesion. Optimum method is to wipe down the blasted surface with a 1:1 solvent mixture by volume of methyl ethyl ketone and mineral spirits. Appropriate safety precautions for working with flammable solvents must be enforced. Alternate procedure is a vigorous soap and water wash followed by pressurized fresh water rinse. Do not use a detergent and fresh water washdown when using aluminum oxide as an abrasive blast medium.

(22) Blasted surface must be cleaned to near white surface finish, SSPC-SP-10, International Courtauld's Hydroblasting Standard HB2-1/2L, or NACE 5/SSPC-SP-12 condition WJ-2L.

(23) Following blasting operations, surface peak-to-valley profile must be checked. If profile of 2 to 4 mils is not present, profile must be established, based upon 5 readings per 1000 square feet. Profile measurements shall be taken in accordance with Method C of 2.g.

(24) Coatings shall be applied only when the temperature of the prepared substrate is greater than 50 degrees Fahrenheit and a minimum of 5 degrees Fahrenheit above the dew point.

(25) Power impact tool cleaning using power-driven needle guns, chipping or scaling hammers, rotary scalers, single or multiple-piston scalers, or other similar impact cleaning tools shall not be utilized in the cleaning methods.

(26) For Tables 4, 5, and 6 maintain the relative humidity in the tank or void space at a maximum of 50 percent from the start of abrasive blasting to cure of the topcoat.

(27) Finish coats for boats and craft shall be as specified in Paragraph 631-9.3.4 through 631-9.3.5 of 2.b unless otherwise specified in the invoking Work Item.

(28) Thermal insulation shall be soap and water cleaned and hand sanded.

(29) Three coats of MIL-DTL-24441, Type III, at 3-4 mils per coat can be substituted for 2 coats of MIL-DTL-24441, Type IV, at 4-6 mils per coat, for total system DFT of 8-12 mils.

(30) Grit blasting to near white metal is the preferred method of surface preparation. Only where grit blasting is not possible should power tool cleaning be used. Power tool cleaning should not be used for well deck areas frequently exposed to LCAC exhaust.

(31) A low pressure (3,000 to 5,000 psi) fresh water washdown of the well deck area shall be performed before either grit blasting or power tool cleaning to remove dirt, oil, grease, salts, and loosely adherent coatings.

(32) Upon completion of surface preparation, pH measurements must be taken. The pH must be in the range of 6.5 to 7.5. If it is not, the surface must be washed with fresh water until the required pH is obtained.

(33) Runs, sags, and drips may appear in the coating due to its solvent-free nature and application properties. In the normal application of this product, the appearance of runs, sags, and drips is only superficial and is not detrimental to the coating system. In these cases, no action shall be taken. In cases where the conditions are determined to be detrimental (coating in excess of 50 mils DFT) to the effectiveness of the coating system, immediate action shall be taken. If the wet run, sag, or drip occurs on a dry surface, brush out the run, sag, or drip and reapply the prime coat directly over the brushed out area. If the run, sag, or drip has dried, then the affected area shall be scraped or mechanically removed and the prime coat shall be reapplied.

(34) Prior to blasting, remove all surface contaminants (such as sea salts, grease, oil, loose rust, mud, and marine growth) with 1000 psi minimum fresh water washdown. This shall be followed by an adequate period of time to allow the surface to dry after solvent cleaning and prior to blasting.

(35) Fill bearing void with Termalene 2 or equal in accordance with CID A-A-50433 after each bearing void installation. Bearing void painting is to be performed only when the shaft is removed.

(36) Install vermiculite based anti-sweat treatment in accordance with Paragraph 631-7.8.3 and 631-7.8.4 of 2.b.

(37) Total dry film thickness specified in Table 4 for potable water tanks shall not be exceeded except in isolated areas adjacent to shapes and stiffeners. In no case shall the maximum dry film thickness be exceeded by two mils. The isolated areas shall be less than two percent of the total area.

a. For touch-up or overcoating intact aged paint in good condition, the same requirements for each coat apply, and the total film thickness maximum requirement may be corrected to allow for thickness of underlying aged paint. Requirement is to avoid excess thickness in individual coats. High dry film thicknesses resulting from the application of extra coats of paint is not considered to be a problem below 35 mils total dry film thickness.

(38) Formula 124, DOD-E-24607 tinted with DOD-C-22325 may be used when none of the approved colors are available. However, this should be a last resort.

(39) Apply heat-resistant paint (TT-P-28) to surfaces, whether insulated or not, where operating temperature is over 400 degrees Fahrenheit. Heat-resisting paint should also be applied to normally uninsulated hot metal surfaces such as boiler drum gages and pressure gage piping. Heat resisting paint is highly flammable during application and should not be applied where surface operating temperatures exceed 85 degrees Fahrenheit. Proper application is two thin coats on well-prepared, dry metal surfaces.

(40) Avoid excessive power wire brushing that results in a polished surface.

(41) Apply three coats of a vapor barrier coating compound, MIL-PRF-19565, in contrasting colors (white-orange-white), to insulation within laundries, sculleries, galleys, drying rooms, and to insulation on the warm side of refrigerated stores spaces.

STEEL SURFACES TABLE 1	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS SEE NOTE (35) SERVICE LIFE FOR 2 YEARS OR LESS	1	NEAR WHITE METAL BLAST, SSPC-SP-10 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (23)	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV*, *4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| |	ONE COAT F-154, MIL-DTL-24441 ***TYPE IV***, ***4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	2 COATS F-121A, 2 MILS/COAT, 4 MILS MIN TOTAL MIL-P-15931 MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP SEE NOTE (27)	2 COATS F-129A, 2 MILS/COAT, 4 MILS MIN TOTAL MIL-P-15931 MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP SEE NOTE (2)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 TO BOOTTOPPING & BELOW, 3 MILS ONE COAT COLOR NO 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY ABOVE BOOTTOPPING, 3 MILS
	2	SAME AS LINE ONE	ONE COAT AMER-COAT 385, 4-6 MILS	ONE COAT AMER-COAT 385, 4-6 MILS		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS -- OR -- KHA303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS -- OR -- KHA 30***2***/KHA062, 5 MILS SEE NOTE (4)		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	4	SAME AS LINE ONE	ONE COAT JOTUN 65-R-10, 4-6 MILS	ONE COAT JOTUN 65-F-15, 4-6 MILS		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, RED, 5 MILS SEE NOTE (3)	ONE COAT AMERON BAR-RUST 235, GRAY , 5 MILS SEE NOTE (3)		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS 5 YEARS SERVICE LIFE	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS -- OR -- KHA 303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS -- OR -- KHA302/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS BRA 642 BLACK (MIL-PRF-24647), 5 MILS/COAT	SAME AS LINE ONE
	7	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, RED, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)	ONE COAT AMERON BAR-RUST 235, GRAY, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)		ONE COAT ABC 3 BLACK, ONE COAT ABC 3 RED (MIL-PRF-24647) 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS DEVOE ABC 3 BLACK (MIL-PRF-24647), 5 MILS/COAT | | SEE NOTE (6)	SAME AS LINE ONE
	8	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC (RED), 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC (GRAY), 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647) -- & -- ONE COAT OLYMPIC 7660-5111AF RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS 7 YEARS SERVICE LIFE	9	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS -- OR -- KHA303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS -- OR -- KHA302/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS BRA 642 BLACK (MIL-PRF-24647), 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	10	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, RED, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)	ONE COAT AMERON BAR-RUST 235, GRAY, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)		ONE COAT ABC 3 BLACK, ONE COAT ABC 3 RED (MIL-PRF-24647), 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS DEVOE ABC 3 BLACK (MIL-PRF-24647), 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	11	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC (RED), 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC (GRAY), 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647) -- & -- ONE COAT OLYMPIC 7660-5111AF RED (MIL-PRF-24647), 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647), 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) 10 TO 12 YEARS SERVICE LIFE	12	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS -- OR -- KHA303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS -- OR -- KHA302/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 640 RED, ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 6 MILS/COAT SEE NOTES (2) & (6)	3 COATS BRA 642 BLACK (MIL-PRF-24647), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	13	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, RED, 5 MILS SEE NOTE (3)	ONE COAT AMERON BAR-RUST 235, GRAY, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)		ONE COAT ABC 3 RED, ONE COAT ABC 3 BLACK, ONE COAT ABC 3 RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2) & (6)	3 COATS DEVOE ABC 3 BLACK (MIL-PRF-24647), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	14	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC (RED), 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC (GRAY), 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-5111AF RED (MIL-PRF-24647) -- & -- ONE COAT OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647) -- & -- ONE COAT OLYMPIC 7660-5111AF RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2) & (6)	3 COATS OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647), 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (STRUTS, RUDDERS, & OTHER CAVITATION PRONE AREAS	15	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV***, ***4-6*** MILS ***SEE NOTES (1) & (29)***	| | ONE COAT F154, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	4 COATS 3M CO. NO. EC-2216, ONE COAT, 6 MILS WFT/COAT (4.2 MILS DFT/COAT) 3 COATS, 8 MILS WFT/COAT (5-6 MILS DFT/COAT) | |	ANTI-FOULING PAINT SAME AS SURROUNDING HULL		
	16	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, 3-4 MILS -- OR -- DEVRAN 230, 3-4 MILS SEE NOTE (3)	ONE COAT AMERON BAR-RUST 235, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)	SAME AS LINE 15	SAME AS LINE 7		
	17	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 3-4 MILS ***-- OR --*** ***KHA303/KHA062, 3-4 MILS*** SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327 5 MILS -- OR -- KHA30***2***/KHA062, 5 MILS SEE NOTE (4)	SAME AS LINE 15	SAME AS LINE 6		
	18	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC (RED), 3-4 MILS SEE NOTE (5)	SAME AS LINE 8	SAME AS LINE 15	SAME AS LINE 8		

STEEL SURFACES TABLE 2	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION:								
EXTERIOR SURFACES ABOVE BOOTTOP WITH EXCEPTION OF FLIGHT DECK & VERTICAL REPLENISHMENT, AND WELL DECK OVERHEAD AREAS SEE NOTE (2)	1	NEAR WHITE METAL BLAST SSPC-SP-10 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (23)	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV***, ***4-6*** MILS -- OR -- ONE COAT MIL-PRF-24647 ANTI-CORROSIVE 5 MILS SEE NOTE***S*** (1) ***& (29)***	ONE COAT F-15***4***, MIL-DTL-24441 ***TYPE IV***, ***4-6*** MILS -- OR -- ONE COAT MIL-PRF-24647 ANTI-CORROSIVE 5 MILS SEE NOTE***S*** (1) ***& (29)***	| | |	ONE COAT DECK GRAY NO.26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL SEE NOTE (8)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MILS TOTAL -- OR -- INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ***ANTI-STAIN***) -- OR -- NILES CHEMICAL PAINT CO. N-6605 (LOW SOLAR ABSORPTION ONLY)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MILS TOTAL PAINT DESIGNATIONS AND MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ***ANTI-STAIN***) -- OR -- NILES CHEMICAL PAINT CO. N-6605 (LOW SOLAR ABSORPTION ONLY) IN LIEU OF WHITE USE LT GRAY, COLOR NO. 26373. IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO. 26173
	2	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE (23)	ONE COAT INORGANIC ZINC SILICATE, 2-3 MILS, DOD-P-24648 -- OR -- CHAP 631, PARA 631-8.23.2.1	ONE MIST COAT F-150, 1-2 MILS WFT, MIL-DTL-24441 -- OR -- ONE COAT MIL-PRF-24647 ANTI-CORROSIVE, 1-2 MILS WFT SEE NOTE (1)	ONE COAT F-150 OR F-151, MIL-DTL-24441, 2-4 MILS WHEN FIRST COAT IS STILL TACKY -- OR -- ONE COAT MIL-PRF-24647 ANTI-CORROSIVE, 5 MILS SEE NOTE (1)	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE

STEEL SURFACES TABLE 2 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
HANGAR DECKS,FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	3	NEAR WHILE METAL BLAST, SSPC-SP-10 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (23)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G		

STEEL SURFACES TABLE 2 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: LANDING & CATAPULT AREAS (CV'S & CVN'S ONLY)	4	SAME AS LINE 3	SAME AS LINE 3			ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I OR II, COMP L SEE NOTE (19)		
WALK AREAS (ALL DECK AREAS OTHER THAN HANGAR, FLIGHT, AND VERTREP)	5	SAME AS LINE 3	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G -- OR -- ONE COAT MIL-PRF-24667 TYPE IV SEE NOTE (19)		
EXTERIOR STEEL SURFACES	6	HAND TOOL CLEAN SSPC-SP-2 ***SEE NOTE (40)***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
EXTERIOR STEEL SURFACES	7	POWER TOOL CLEAN ***TO BARE METAL,*** SSPC-SP-11 ***SEE NOTE (40)***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 2 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: WELL DECK OVERHEADS,BOTH EXPOSED AND NON-EXPOSED TO LCAC EXHAUST SEE NOTE (30)	8	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTES (23) & (31)	ONE COAT CREAM SIGMA COATINGS EDGEGUARD PRIMER (PDS NO.5427), 6-8 MILS DFT SEE NOTE (33)	ONE ***STRIPE*** COAT GRAY SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO.5428), 8-12 MILS DFT SEE NOTE (33)	ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10-12 MILS DFT SEE NOTE (33)			
	9	SAME AS LINE 8	ONE COAT GOLD SHERWIN WILLIAMS PRIMER (B622H220/B62V220), 6-8 MILS DFT SEE NOTE (33)	ONE ***STRIPE*** COAT DARK GRAY SHERWIN WILLIAMS NOVA-PLATE TOPCOAT (B62A220/B62V220), 8-12 MILS DFT SEE NOTE (33)	ONE COAT OFF-WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, LIGHT GRAY (B62A220/B62V22***0***), 10-12 MILS DFT SEE NOTE (33)			
VARIOUS	10	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ***SEE NOTE (40)***						
DECKS, INSIDE THE COAMING, UNDER AFFF PROPORTIONING UNITS	***11***	***POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11*** ***SEE NOTE (32)***	***ONE COAT BELZONA CERAMIC METAL 4311, 12-18 MILS DFT***		***ONE COAT BELZONA CERAMIC METAL 4311, 12-18 MILS DFT***			
	12	***SAME AS LINE 11***	***ONE COAT CHESTERTON ARC 855N, 12-18 MILS DFT***		***ONE COAT CHESTERTON ARC 855N, 12-18 MILS DFT***			
	13	***SAME AS LINE 11***	***ONE COAT PALMER-ENECON CERAMALLOY CL+, 12-18 MILS DFT***		***ONE COAT PALMER-ENECON CERAMALLOY CL+, 12-18 MILS DFT***			

STEEL SURFACES TABLE 3	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631-8.23.4	1	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (17), (28) ***& (40)***	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT -- OR -- ONE COAT F-150, MIL-DTL-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USA A TACK COAT PRIOR TO TOPCOAT -- OR -- MIL-PRF-23236, 3-5 MILS DFT SEE NOTE***S*** (1) ***& (38)***	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS SAME AS BHDS & OVHDS ***SEE NOTE (41)***	FOR COMP'T PIPING VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT -- OR -- ONE COAT F-150, MIL-DTL-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USA A TACK COAT PRIOR TO TOPCOAT -- OR -- MIL-PRF-23236, 3-5 MILS DFT SEE NOTE (1)	SAME AS LINE ONE	2 COATS DOD-E-24607, 3 MILS TOTAL	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	3	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTE (28) ***& (40)***	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT		SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT

STEEL SURFACES TABLE 3 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	4	HAND TOOL CLEANING, SSPC-SP-2 ***SEE NOTE (40)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6 MILS*** SEE NOTE***S*** (1) ***& (29)***		***ONE*** COAT F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS/COAT SEE NOTE***S*** (1) ***& (29)***	***ONE*** COATS F-151, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE***S*** (1) ***& (29)***	SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE 4	MIL-PRF-23236, CLASS ONE				SAME AS LINE ONE	SAME AS LINE ONE
FIRE ZONE BULKHEAD	6	SAME AS LINE ONE	SAME AS LINE ONE		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-***PRF***-46081 ***-- OR --*** ***MIL-PRF-24596 TYPE II***, 5 MILS/COAT			
INTERIOR STEEL SURFACES	7	NEAR WHITE METAL BLAST, SSPC-SP-10 ***SEE NOTE (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS ***SEE NOTES (1) & (29)***	| |	ONE COAT F-156 OR F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS ***SEE NOTES (1) & (29)***	SAME AS COLUMN D/BULKHEAD -- OR -- NOT APPLICABLE (WHERE DECK PLATES EXIST)	SAME AS COLUMN D/BULKHEAD	SEE NOTE (18)

STEEL SURFACES TABLE 3 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631-8.23.4	8	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTES (17), (28) ***& (40)***	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT -- OR -- ONE COAT F-150, MIL-DTL-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)	BHDS, OVHDS, ONE COAT NO.37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS SAME AS BHDS & OVHDS ***SEE NOTE (41)***	FOR COMP'T PIPING VENTILATION SEE NOTE (18)
	9	SAME AS LINE 8	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT -- OR -- ONE COAT F-150, MIL-DTL-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE***S*** (1) ***& (38)***	SAME AS LINE ONE	2 COATS DOD-E-24607, 3 MILS TOTAL	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	10	POWER TOOL CLEANING, SSPC-SP-3	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT			

STEEL SURFACES TABLE 3 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE***S*** (28) ***& (40)***	ONE COAT F-150, MIL-DTL-24441, 2-4 MILS ONE COAT F-150, MIL-DTL-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS F-152, MIL-DTL-24441, 2-4 MILS/COAT SEE NOTE (1)	2 COATS F-151, MIL-DTL-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	12	SAME AS LINE 11	MIL-PRF-23236, CLASS ONE				SAME AS LINE ONE	SAME AS LINE ONE
	13	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY ES301K, 4-6 MILS WFT			EURONAVY ES301S, ONE STRIPE COAT, 4-6 MILS WFT AND ONE FINAL COAT 4-6 MILS WFT TOTAL SYSTEM 12 MILS MAXIMUM		
FIRE ZONE BULKHEAD	14	SAME AS LINE 11	SAME AS LINE ONE		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-***PRF***-46081 ***-- OR --*** ***MIL-PRF-24596 TYPE II,*** 5 MILS/COAT			
INTAKE VENT PLENUMS	15	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE (34)	ONE COAT CREAM SIGMA COATINGS EDGEGUARD PRIMER (PDS NO. 5427), 5-6 MILS DFT SEE NOTE (33)	| |	***ONE STRIPE COAT GREEN SIGMA EDGEGUARD (PDS NO. 5428), 8-12 MILS DFT*** ***-- & --*** ***ONE COAT SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10-12 MILS DFT*** ***SEE NOTE (33)***			

STEEL SURFACES TABLE 3 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS	16	SAME AS LINE 15	ONE COAT GOLD SHERWIN WILLIAMS PRIMER (B622H220/B62V220), 6-8 MILS DFT SEE NOTE (33)		ONE ***STRIPE*** COAT DARK GRAY SHERWIN WILLIAMS NOVA-PLATE TOPCOAT (B62A220/B62V220), 8-12 MILS DFT **-- *&* --** ONE COAT OFF-WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, LIGHT GRAY (B62A220/B62V22***0***), 10-12 MILS DFT SEE NOTE (33)			
INTERIOR DECK SURFACES	17	SAME AS LINE 11	SAME AS LINE 11					

STEEL SURFACES TABLE 4	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
LOCATION: POTABLE WATER TANKS	1	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTES (23) & (26)	ONE COAT INTERNATIONAL 5747/5748, GREEN, 4 MILS MAX EACH COAT	ONE COAT INTERNATIONAL 5753/5754, WHITE, 4 MILS MAX EACH COAT				TOTAL SYSTEM 6 MILS MIN, 8 MILS MAX ***SEE NOTE (37)***
	2	SAME AS LINE ONE	ONE COAT TANKGUARD NO, ONE, 2-4 MILS	ONE COAT TANKGUARD NO. 3, 2-4 MILS EACH COAT				TOTAL SYSTEM 6 MILS MIN, 8 MILS MAX ***SEE NOTE (37)***
	3	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441 ***TYPE III***, 2-4 MILS SEE NOTE (1)	ONE COAT F-156, MIL-DTL-24441 ***TYPE III***, 2-4 MILS SEE NOTE (1)	ONE COAT F-152, MIL-DTL-24441 ***TYPE III***, 2-4 MILS SEE NOTE (1)			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX ***SEE NOTE (37)***
	4	SAME AS LINE ONE	ONE COAT JOTUN SOVAPON 264-W-12, 4 MILS MAX	ONE COAT JOTUN SOVAPON 264-F-25, 4 MILS MAX EACH COAT				TOTAL SYSTEM 6 MILS MIN, 8 MILS MAX ***SEE NOTE (37)***

STEEL SURFACES TABLE 5	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
LOCATION: FEEDWATER TANKS ONLY	1	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTES (23), (26) ***& (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| |	ONE COAT F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX
	2	SAME AS LINE ONE	CHAP 631, TABLE 631-8-5					

STEEL SURFACES TABLE 6	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
LOCATION: ***JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS*** ***EDGE RETENTIVE-EXTENDED SERVICE LIFE 15-20 YEARS***	***1***	***NEAR WHITE METAL BLAST, SSPC-SP-10*** ***SEE NOTES (23), (26) & (34)***	***ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 6-8 MILS DFT*** ***SEE NOTE (33)***	***ONE STRIPE COAT OFF-WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 8-12 MILS DFT*** ***SEE NOTE (33)***	***ONE COAT GRAY SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10-16 MILS DFT*** ***SEE NOTE (33)***			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS ***EDGE RETENTIVE SERVICE LIFE 10-12 YEARS***	***2***	***NEAR WHITE METAL BLAST, SSPC-SP-10*** ***SEE NOTES (23) & (34)***	***ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 6-8 MILS DFT*** ***SEE NOTE (33)***	***ONE STRIPE COAT OFF-WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 8-12 MILS DFT*** ***SEE NOTE (33)***	***ONE COAT GRAY SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10-16 MILS DFT*** ***SEE NOTE (33)***			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS ***NORMAL SERVICE LIFE 5-7 YEARS***	***3***	***SAME AS LINE 2***	***ONE COAT F-150, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***		***ONE COAT F-152, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***			***TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX***
	4	***SAME AS LINE 2***	***MIL-PRF-23236*** ***SEE NOTE (10)***	***MIL-PRF-23236*** ***SEE NOTE (10)***				***EACH COAT AND TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS*** ***SEE NOTE (1)***
CHT/MSD TANKS	***5***	***SAME AS LINE ONE*** ***SEE NOTES (23), (26) & (34)***	***ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 6-8 MILS DFT*** ***SEE NOTE (33)***	***ONE STRIPE COAT GREEN SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 8-12 MILS DFT*** ***SEE NOTE (33)***	***ONE COAT WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10-16 MILS DFT*** ***SEE NOTE (33)***			

STEEL SURFACES TABLE 6 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
LOCATION: AFFF TANKS	6	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX
	7	SAME AS LINE ONE SEE NOTES (23), (26) & (34)	ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 6-8 MILS DFT SEE NOTE (33)	ONE STRIPE COAT GREEN SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 8-12 MILS DFT SEE NOTE (33)	ONE COAT WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10-16 MILS DFT SEE NOTE (33)			
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT AND ABOVE) ***EDGE RETENTION-EXTENDED SERVICE LIFE 15-20 YEARS***	8	SAME AS LINE ONE	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4-5 MILS SEE NOTE (33)	ONE ***STRIPE*** COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, ***GRAY***, ***8-12*** MILS SEE NOTE (33)	***ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, AQUA, 10-12 MILS*** ***SEE NOTE (33)***			TOTAL SYSTEM 14 MILS MIN, 17 MILS MAX AREAS OF STRIPE COAT (CORNERS, EDGES & WELDS) 22 MILS MIN, 29 MILS MAX
	9	***SAME AS LINE ONE***	***ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS PRIMER, 4-8 MILS*** ***SEE NOTE (33)***	***ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 8012 MILS*** ***SEE NOTE (33)***	***ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10-12 MILS*** ***SEE NOTE (33)***			***TOTAL SYSTEM 14 MILS MIN, 20 MILS MAX (22 MILS MIN, 29 MILS MAX ON CORNERS, EDGES, AND WELDS)***
	10	SAME AS LINE ONE	***ONE COAT JOTUN 591 PRIMER (591F25/591T100), GREY, 507 MILS*** SEE NOTE (33)	***ONE STRIPE COAT JOTUN 591 TOPCOAT (591W3/591T100), WHITE, 10-14 MILS*** ***SEE NOTE (33)***	***ONE COAT JOTUN 591 TOPCOAT (591G10K/591T100), GREEN, 10-14 MILS*** ***SEE NOTE (33)***			
BALLAST TANKS, FLOODABLE VOIDS (USE ONLY WHEN SUBSTRATE TEMPERATURE CANNOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT) ***EDGE RETENTION-EXTENDED SERVICE LIFE 15-20 YEARS***	11	SAME AS LINE ***ONE***	***ONE COAT JOTUN 591 WINTERGRADE PRIMER (591F25/591T8), GREY, 5-7 MILS*** ***SEE NOTE (33)***	***ONE STRIPE COAT JOTUN 591 WINTERGRADE TOPCOAT (591W3/591T8), WHITE, 10-14 MILS*** ***SEE NOTE (33)***	***ONE COAT JOTUN 591 WINTERGRADE TOPCOAT (591G10K/591T8), GREEN, 10-14 MILS*** ***SEE NOTE (33)***			

STEEL SURFACES TABLE 6 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT AND ABOVE) EDGE RETENTIVE 10-12 YEARS	12	SAME AS LINE ***2***	***ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4-5 MILS*** ***SEE NOTE (33)***	***ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411 GRAY, 8-12 MILS*** ***SEE NOTE (33)***	***ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, AQUA, 10-12 MILS*** ***SEE NOTE (33)***			***TOTAL SYSTEM 14 MILS MIN, 17 MILS MAX*** ***AREAS OF STRIPE COAT (CORNERS, EDGES & WELDS) 22 MILS MIN, 29 MILS MAX***
	13	***SAME AS LINE 2***	***ONE COAT SHERWIN-WILLIAMS DURA-PLATE UHS PRIMER, 4-8 MILS*** ***SEE NOTE (33)***	***ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 8-12 MILS*** ***SEE NOTE (33)***	***ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10-12 MILS*** ***SEE NOTE (33)***			***TOTAL SYSTEM 14 MILS MIN, 20 MILS MAX (22 MILS MIN, 29 MILS MAX ON CORNERS, EDGES, AND WELDS)***
	14	***SAME AS LINE 2***	***ONE COAT JOTUN 591 PRIMER (591F25/591T100), GREY, 5-7 MILS*** ***SEE NOTE (33)***	***ONE STRIPE COAT JOTUN 591 TOPCOAT (591W3/591T100), WHITE, 10-14 MILS*** ***SEE NOTE (33)***	***ONE COAT JOTUN 591 TOPCOAT (591G10K/591T100), GREEN, 10-14 MILS*** ***SEE NOTE (33)***			
BALLAST TANKS, FLOODABLE VOIDS (USE ONLY WHEN SUBSTRATE TEMPERATURE CANOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT) ***EDGE RETENTIVE 10-12 YEARS***	***15***	***SAME AS LINE 2***	***ONE COAT JOTUN 591 WINTERGRADE PRIMER (591F25/591TI), GREY, 5-7 MILS*** ***SEE NOTE (33)***	***ONE COAT STRIPE COAT JOTUN 591 WINTERGRADE TOPCOAT (591W3/591T8), WHITE, 10-14 MILS*** ***SEE NOTE (33)***	***ONE COAT JOTUN 591 WINTERGRADE TOPCOAT (591G10K/591T8), GREEN, 10-14 MILS*** ***SEE NOTE (33)***			
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT AND ABOVE) ***NORMAL 5-7 YEARS SERVICE LIFE***	***16***	***SAME AS LINE 2***	***ONE COAT F-150, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***		***ONE COAT F-152, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***			***TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX***
	17	***SAME AS LINE 2***	***MIL-PRF-23236***	***MIL-PRF-23236***				***SAME AS LINE 2***
BALLAST TANKS, FLOODABLE VOIDS (USE ONLY WHEN SUBSTRATE TEMPERATURE CANNOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT) ***NORMAL 5-7 YEARS SERVICE LIFE***	***18***	***SAME AS LINE 2***	***ONE COAT F-150, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***		***ONE COAT F-152, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***			***TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX***
	19	***SAME AS LINE 2***	***MIL-PRF-23236, GRADE A***	***MIL-PRF-23236, GRADE A***				***SAME AS LINE 2***

STEEL SURFACES TABLE 7	LINE	A SURFACE PREPARATION	B PRIMER	C PRIMER	D	E	F	G TOTAL
LOCATION: CHAIN LOCKERS	1	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE***S*** (23) ***& (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| | |	ONE COAT F-153 OR F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***			TOTAL SYSTEM 8-12 MILS
	2	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)				EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (11)
	3	SAME AS LINE ONE	ONE COAT INORGANIC ZINC PRIMER, 3-5 MILS, DOD-P-24646 -- OR -- CHAP 631, PARA 631-8.23.2.1	ONE MIST COAT F-150, 1-2 MILS WFT, MIL-DTL-24441 SEE NOTE (1)	ONE COAT F-151, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)		ONE COAT F-152 OR F-153, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)	TOTAL SYSTEM 10-16 MILS
NON-FLOODABLE VOIDS	4	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| | |	ONE COAT F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***			TOTAL SYSTEM 6-8 MILS
	5	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)				EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (11)
	6	LINE INTENTIONALLY LEFT BLANK						

STEEL SURFACES TABLE 7 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C PRIMER	D	E	F	G TOTAL
LOCATION: NON-FLOODABLE VOIDS	7	SAME AS LINE ONE	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4-5 MILS SEE NOTE (33)	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, AQUA, 10-12 MILS SEE NOTE (33)				TOTAL SYSTEM 14 MILS MIN, 17 MILS MAX AREAS OF STRIPE COAT (CORNERS, EDGES & WELDS) 22 MILS MIN, 29 MILS MAX
	8	SAME AS LINE ONE	ONE COAT SHERWIN-WILLIAMS DURA-PLATE UHS PRIMER, 4-8 MILS SEE NOTE (33)	ONE COAT SHERWIN-WILLIAMS DURA-PLATE UHS, 10-12 MILS SEE NOTE (33)				TOTAL SYSTEM 14 MILS MIN, 20 MIS MAX (22 MILS MIN, 29 MILS MAX ON CORNERS, EDGES AND WELDS)
	9	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ***SEE NOTE (40)***	2 COATS F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 3 MILS TOTAL	ONE COAT NO. 27875 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL				TOTAL SYSTEM 4.5-6 MILS
MACHINERY SPACES & BILGES	***10***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE***S*** (23), ***(29) & (40)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| | |	BILGE AREA: ONE COAT F-156, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***(29)***	ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 2-4 MILS		TOTAL SYSTEM 8-12 MILS

STEEL SURFACES TABLE 7 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C PRIMER	D	E	F	G TOTAL
LOCATION: MACHINERY SPACES & BILGES	***11***	SAME AS LINE ***10***	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)		SAME AS LINE ***10***		EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS SEE NOTE (11)
	12	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 -- OR -- FOR HYDROBLASTED SURFACES, USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE***S*** (23) ***& (40)***	ONE COAT EURONAVY ES301K, 4-6 MILS WFT	STRIPE COAT EURONAVY ES301S, 4-6 MILS WFT	FINAL COAT EURONAVY ES301S, 4-6 MILS WFT	SAME AS LINE ***10***		TOTAL SYSTEM 8-12 MILS DFT

ALUMINUM SURFACES TABLE 8	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) SEE NOTE (35)	1	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE, MIL-A-21380 TYPE ONE OR MIL-A-22262 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (23)	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327,GRAY, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL BXA 38***0/BXA 381***, DARK GRAY, 3-5 MILS	ONE COAT INTERNATIONAL BXA 816/BXA 821/BXA 822, GRAY, 6 MILS TOTAL	ONE COAT INTERNATIONAL BXA 816/BXA 821/BXA 822, GRAY, 6 MILS TOTAL	ONE COAT INTERNATIONAL BXA 819/BXA 821/BXA 822, BLACK
	2	TOUCH-UP OR REMOVE PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2 -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.4.3 SEE NOTE (21)	FOR TOUCH-UP, OR FOLLOWING PAINT REMOVAL TO SOUND PRIMER, USE APPROPRIATE PAINT SYSTEM FROM LINE ONE					SAME AS LINE ONE
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) SEE NOTE (35) APPLIES TO PHM'S ONLY	3	ABRASIVE BLASTING WITH ALUMINUM OXIDE, MIL-A-21380 TYPE ONE, OR BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2, TO SOUND PRIMER SEE NOTE (21)	FOR TOUCH-UP OR FOLLOWING PAINT REMOVAL TO SOUND PRIMER, USE APPROPRIATE PAINT SYSTEM FROM LINE ONE					SAME AS LINE ONE

ALUMINUM SURFACES TABLE 8 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (STRUTS, RUDDERS & OTHER CAVITATION PRONE AREAS	4	SAME AS LINE ONE	ONE COAT MIL-DTL-24441, FORMULA 150, 3-4 MILS DFT, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (1)	2 COATS OF INTERNATIONAL PGA 750/751 AT 25 MILS EACH FOR A TOTAL OF 50 MILS DFT		ANTI-FOULING PAINT SAME AS SURROUNDING HULL		
	5	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235 RED, 3-4 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (3)	SAME AS LINE 4		SAME AS LINE 4		
	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 3-4 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	SAME AS LINE 4		SAME AS LINE 4		

ALUMINUM SURFACES TABLE 9	LINE	A SURFACE PREPARATION	B PRIMER	C	D TOPCOAT	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & DECKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: EXTERIOR SURFACES ABOVE BOOTTOP	1	ABRASIVE BLASTING, USING GARNET, ALUMINUM OXIDE, OR BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2 -- & -- SPOT CLEANING, CHAP 631, PARA 631-5.2.4.3 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (21), (22), (23) ***& (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS, WITHIN 4 HRS AFTER SURFACE PREPARATION SEE NOTE***S*** (1) ***& (29)***	| | |	ONE COAT F-151, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL SEE NOTE (8)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MILS TOTAL) ***-- OR --*** ***INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN)***	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MIS TOTAL PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY -- OR -- INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ***ANTI-STAIN***) -- OR -- NILES CHEMICAL PAINT CO. N-6605 (LOW SOLAR ABSORPTION ONLY) IN LIEU OF WHITE USE LT GRAY, COLOR NO.26373; IN PLACE OF BLACK, USE OCEAN GRAY, COLOR NO. 26173
	2	SAME AS LINE ONE		2 COATS F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS TOTAL		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

ALUMINUM SURFACES TABLE 9	LINE	A SURFACE PREPARATION	B PRIMER	C	D TOPCOAT	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & DECKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: WALK AREAS ALL DECK AREAS OTHER THAN HANGAR, FLIGHT & VERTICAL REPLENISHMENT DECK AREAS	3	NEAR WHITE BLAST, SSPC-SP-10, USING GARNET, ALUMINUM OXIDE OR BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2 -- OR -- FOR HYDROBLASTED SURFACES, USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTES (21), (22) & (23)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G -- OR -- ONE COAT MIL-PRF-24667 TYPE IV SEE NOTE (19)		
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	4	SAME AS LINE 3	SAME AS LINE 3			ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G		
INTERIOR VERTICAL SURFACES	5	POWER TOOL CLEAN ***TO BARE METAL***, SSPC-SP-11	ONE COAT F-150 PER MIL-DTL-24441 ***TYPE IV, 4-6*** MILS APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACKY COAT PRIOR TO TOPCOAT. SEE NOTE***S*** (1) ***& (29)***	***ONE COAT F-151, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***	2 COATS DOD-E-24607, 2-4 MILS -- OR -- 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT			
VARIOUS	6	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11						

ALUMINUM SURFACES TABLE 10	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	1	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHES, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT	BHDS, OVHDS & DECKS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING DECK COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS SAME AS BHDS & OVHDS ***SEE NOTE (41)***	FOR COMP'T PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	2 COATS DOD-E-24607, 3 MILS TOTAL	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, 2-4 MILS APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1) ***& 38)***	SAME AS LINE ONE	SAME AS LINE 2	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
POTABLE WATER TANKS	4	NEAR WHITE BLAST, SSPC-SP-10, TO ACHIEVE 1-1/2 TO 2 MILS ANCHOR PATTERN, USING GARNET OR ALUMINUM OXIDE SEE NOTE (23)	TABLE 4, LINES ONE THROUGH 4					
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	5	HAND TOOL CLEAN, SSPC-SP-2 SEE NOTE***S*** (28)***, (29) & (40)***	ONE COAT F-150 MIL-DTL-24441 ***TYPE IV, 4-6*** MILS. APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE***S*** (1) ***& (29)***		***ONE*** COAT F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	2 COATS F-151, MIL-DTL-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	6	SAME AS LINE 5	MIL-PRF-23236 SEE NOTE (10)				SAME AS LINE ONE	SAME AS LINE ONE

ALUMINUM SURFACES TABLE 10 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: FIRE ZONE BULKHEAD	7	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, 2-4 MILS APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-***PRF***-46081, 5 MILS/COAT			
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	8	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE***S*** (28)***, (29) & (40)***	ONE COAT F-150-MIL-DTL-24441 ***TYPE IV, 4-6*** MILS APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE***S*** (1) ***& (29)***		2 COATS F-152, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	2 COATS F-151, MIL-DTL-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	9	SAME AS LINE 8	MIL-PRF-23236 SEE NOTE (10)				SAME AS LINE ONE	SAME AS LINE ONE
	10	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY ES301K, 4-6 MILS WFT			EURONAVY ES301S, ONE STRIPE COAT, 4-6 MILS WFT AND ONE FINAL COAT 4-6 MILS WFT TOTAL SYSTEM 12 MILS MAXIMUM		
MACHINERY SPACES AND BILGES	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 -- OR -- FOR HYDROBLASTED SURFACES, USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE (23)	ONE COAT EURONAVY ES301K, 4-6 MILS WFT	| | | |	***ONE*** STRIPE COAT EURONAVY ES301S, 4-6 MILS WFT ***-- & --*** ***ONE*** FINAL COAT EURONAVY ES301S, 4-6 MILS WFT	ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 2-4 MILS		TOTAL SYSTEM 8-12 MILS DFT

ALUMINUM SURFACES TABLE 10 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: ***MACHINERY SPACES & BILGES***	***12***	***POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11*** ***SEE NOTE (29)***	***ONE COAT F-150, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***		***ABOVE BILGE AREA:*** ***2 COATS F-124, DOD-E-24607, 2-4 MILS***	***BILGE AREA:*** ***ONE COAT F-156, MIL-DTL-24441 TYPE IV, 4-6 MILS*** ***SEE NOTES (1) & (29)***		***TOTAL SYSTEM 8-12 MILS***
	13	***SAME AS LINE 12*** ***SEE NOTE (23) & (29)***	***MIL-PRF-23236*** ***SEE NOTE (10)***	***MIL-PRF-23236*** ***SEE NOTE (10)***		***SAME AS LINE 12***		***EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS*** ***SEE NOTE (11)***
INTAKE VENT PLENUMS, BETWEEN SKIN OF SHIP AND MOISTURE SEPARATORS	***14***	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE (34)	ONE COAT CREAM SIGMA COATINGS EDGEGUARD PRIMER (PDS NO. 5427), 5-6 MILS DFT SEE NOTE (33)		***ONE STRIPE COAT GREEN SIGMA EDGEGUARD TOP COAT (PDS NO. 5428), 8-12 MILS DFT*** ***-- & --*** ***ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10-12 MILS DFT*** ***SEE NOTE (33)***			
	15	SAME AS LINE 12	ONE COAT GOLD SHERWIN WILLIAMS PRIMER (B622H220/B62V220), 6-8 MILS DFT SEE NOTE (33)		ONE ***STRIPE*** COAT DARK GRAY SHERWIN WILLIAMS NOVA-PLATE TOPCOAT (B62A220/B62V220), 8-12 MILS DFT ***-- & --*** ONE COAT OFF-WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, LIGHT GRAY (B62A220/B62V22***0***), 10-12 MILS DFT SEE NOTE (33)			

WOOD SURFACES TABLE 11	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G HULL DRAFT IDENT. MARKINGS
LOCATION: UNDERWATER HULL	1	BRUSH-OFF BLAST TO REMOVE LOOSE & DETERIORATED COATINGS -- OR -- HIGH-PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT SEE NOTE (20)	KEEL TO 6 INCHES ABOVE UPPER BOOTTOP LIMIT ONE COAT F-150, MIL-DTL-24441, 2-3 MILS SEE NOTE (1)			2 COATS F-121A, MIL-P-15931, 2-3 MILS EACH COAT, TO UNDERWATER HULL, APPENDAGES, SEA CHESTS & STRAINER PLATES UP TO BOTTOM OF BOOTTOPPING AREA MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-121A MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP. PUTTY SCREW HEADS, WHERE COMPOUND IS MISSING, WITH CAULKING COMPOUND CONFORMING TO TT-C-1796 AFTER FIRST COAT OF F-121A SEE NOTE (27)	3 COATS F-129A, MIL-P-15931, 2-3 MILS EACH COAT MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-129A	ONE COAT NO. 26373 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) LT GRAY, TO BOOTTOPPING & BELOW, 3-4 MILS TOTAL ONE COAT NO. 26173 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) OCEAN GRAY, ABOVE BOOTTOPPING. MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP

WOOD SURFACES TABLE 12	LINE	A SURFACE PREPARATION	B PRIMER	C DECKS, MASTS & SPARS	D ALL OTHER SURFACES	E ACCOMMODATION LADDER	F	G IDENT. MARKINGS
LOCATION: EXTERIOR ABOVE BOOTTOPPING	1	HAND TOOL CLEAN -- OR -- POWER TOOL CLEAN TO REMOVE DETERIORATED COATINGS	ONE COAT F-150, MIL-DTL-24441 SEE NOTE (1)	ONE COAT NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) 3 MILS TOTAL -- OR -- ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL	4 COATS NAVSEA APPROVED SPAR VARNISH, 6 MILS MIN		PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ***ANTI-STAIN***) -- OR -- NILES CHEMICAL PAINT CO. N-6605 (LOW SOLAR ABSORPTION ONLY) IN LIEU OF WHITE USE LT GRAY, COLOR NO, 26373; IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO. 26173

WOOD SURFACES TABLE 13	LINE	A SURFACE PREPARATION	B PRIMER	C	D BULKHEADS & OVERHEADS	E	F	G DESIGNATION & MARKINGS
LOCATION: INTERIOR COMPARTMENTS	1	HAND TOOL CLEAN -- & -- POWER TOOL CLEAN TO BARE WOOD OR TIGHTLY ADHERING INTACT PAINT	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 3 MILS DFT		2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTES (9) & (17)			FOR COMP'T PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441		2 COATS DOD-E-24607, 3 MILS SEE NOTE***S*** (17) ***& (38)***			SAME AS LINE ONE

VARIOUS LOCATIONS TABLE 14	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESIGNATION & MARKINGS
LOCATION: UNHEATED PIPING, FITTINGS, VALVES	1	HAND TOOL CLEAN, SSPC-SP-2 -- & -- POWER TOOL CLEAN, SSPC-SP-3 ***SEE NOTE (40)***	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 MILS	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 MILS	2 COATS OF FINISH COAT TO LAGGED SURFACES TO MATCH SURROUNDING AREAS			ONE COAT MIL-PRF-24635, 1.5 MILS, FOR COLOR CODED SYSTEMS
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, 3 MILS SEE NOTE (1)		SAME AS LINE ONE			
UNHEATED FERROUS MACHINERY EXTERNAL SURFACES	3	SAME AS LINE ONE	SAME AS LINE ONE		ONE COAT F-111, MIL-E-15090, 1.5 MILS -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-***PRF***-24635, 3 MILS			
MACHINERY, GAGEBOARDS ***SEE NOTE (39)***	4	SAME AS LINE ONE	SAME AS LINE ONE	2 COATS F-111, MIL-E-15090, 3 MILS TOTAL -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-***PRF***-24635, 3 MILS TOTAL				
FERROUS SHEET METAL SURFACES (UNHEATED, EXTERNAL & INTERNAL)	5	SAME AS LINE ONE	SAME AS LINE ONE	ONE COAT OF FINISH COAT TO MATCH SURROUNDING COMPARTMENT OR AREA				
UNINSULATED SIDE OF BULKHEAD OR SHELL ADJACENT TO SEA OR AC BOUNDARY	6	POWER TOOL CLEAN ***TO BARE METAL***, SSPC-SP-11	ONE COAT F-150, MIL-DTL-24441, 3 MILS	ONE COAT F-151, MIL-DTL-24441, 3 MILS	FORMULA 34, DOD-P-15144, 5 MILS AS BINDER SEE NOTE (36)	VERMICULITE, ASTM C516 TYPE I, GRADE 4, SPRAYED	FORMULA 124, DOD-E-24607, 2-4 MILS DFT	
	7	SAME AS LINE 6	ONE COAT HEMPADUR 4515-5063AC, 5 MILS	ONE COAT HEMPADUR 617 US, 50-60 MILS				

VARIOUS LOCATIONS TABLE 14 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESIGNATION & MARKINGS
LOCATION: BOILERS & ECONOMIZERS (EXCEPT PARTS USED FOR HEAT TRANSFER), MACHINERY CASINGS, FERROUS SHEET METAL & PIPING SURFACES EXCEEDING 125 DEGREES FAHRENHEIT	8	SAME AS LINE ONE	2 COATS OF HEAT RESISTANT PAINT, AMERCOAT 892HS, 3 MILS TOTAL ***SEE NOTE (39)***		SAME AS LINE ONE			
ELECTRICAL EQUIPMENT, ELECTRONIC EQUIPMENT & CABLES	9	SAME AS LINE ONE	ONE COAT F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 MILS	2 COATS F-111, MIL-E-15090, 3 MILS TOTAL -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL				
CABLE, INTERIOR (OTHER THAN PVC, LOW SMOKE)	10	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS	2 COATS F-25A OR 2 COATS WATER-BASED LATEX PER MIL-PRF-24596 -- OR -- ONE COAT OCEAN 634 AND 2 COATS OCEAN 9788	2 COATS DOD-E-24607 CHLORINATED ALKYD (FOR COLOR MATCH IF REQUIRED)			
CABLE, EXTERIOR (OTHER THAN PVC, LOW SMOKE)	11	SAME AS LINE ONE	SAME AS LINE 9	ONE COAT MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) TO MATCH SURROUNDING AREA				
ELECTRICAL/ELECTRONIC CABLES (PVC, LOW SMOKE)	12	SAME AS LINE ONE	2 COATS MIL-PRF-24596, WATER-BASED LATEX -- OR -- 2 COATS OF FORMULA 25A -- OR --ONE COAT OCEAN 634 AND 2 COATS OCEAN 9788		2 COATS OF DOD-E-24607 (FOR COLOR MATCH IF REQUIRED)			

VARIOUS LOCATIONS TABLE 14	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESIGNATION & MARKINGS
LOCATION: ANCHOR (SURFACE SHIP BOW ANCHORS) FOR ANCHORS BELOW LOWER BOOTTOPPING LIMIT, SEE NOTE (13)	13	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE***S*** (14) ***& (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6 MILS*** -- OR -- ONE COAT MIL-PRF-23236, 3-5 MILS DFT SEE NOTE***S*** (1) ***& (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6 MILS*** -- OR -- ONE COAT MIL-PRF-23236, 3-5 MIS DFT SEE NOTE***S*** (1) ***& (29)***	ONE COAT HAZE GRAY, NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL		7 MILS MIN, 11 MILS MAX	
ANCHOR CHAIN	14	COMMERCIAL BLAST CLEAN, SSPC-SP-6 SEE NOTES (14) & (16)	ONE COAT AMERON PSX 700 TO HOLD BLAST, 1-2 MILS	ONE COAT AMERON PSX 700, 4-5 MILS	ONE COAT AMERON PSX 700, 4-5 MILS		10 MILS MIN, 12 MILS MAX	AMERON PSX 700 SEE NOTE (15)
GALVANIZED SURFACES	15	BRUSH-OFF BLAST, SSPC-SP-7 -- OR -- POWER TOOL CLEAN, SSPC-SP-3 ***SEE NOTES (14) & (29)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***	| | |	ONE COAT F-152, F-153 OR F-156, MIL-DTL-24441 ***TYPE IV, 4-6*** MILS SEE NOTE***S*** (1) ***& (29)***		8 MILS MIN, 12 MILS MAX	
EXHAUST PIPE EXTERIOR	16	NEAR WHITE METAL BLAST, SSPC-SP-10		ONE COAT AMERCOAT 892HS, HAZE GRAY #26270, 2-3 MILS DFT			NOT TO EXCEED 5 MILS DFT	
PCMS ***(REPAIRS)***	17	STRIP PAINT, USING "PEEL-AWAY-7" SEE ***REPAIR & INSTALLATION METHODS, RIM 05T1-99***			ONE COAT HAZE GRAY, MIL-E-24763, 3-5 MILS WFT ***(TOP COAT OF PCMS)***			
PCMS (NEW INSTALLATION)	***18***	***NEAR WHITE METAL BLAST, SSPC-SP-10 -- OR -- POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11***	***ONE COAT F-150, MIL-DTL-24441 TYPE IV, 4-6 MILS DFT SEE NOTES (1) & (29)***	***ONE COAT F-151, MIL-DTL-24441 TYPE IV, 4-6 MILS DFT SEE NOTES (1) & (29)***	***SAME AS LINE 17***			

STEEL SURFACES TABLE 15	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL SYSTEM
LOCATION: STRUCTURE & FITTINGS BELOW DECK PLATES IN MACHINERY SPACES (BILGES, BILGE WELLS & SUMPS) NOTE: FOR RECOAT OR TOUCH-UP OF EXISTING COATING SYSTEMS ONLY. FOR COMPLETE BILGE COATING, SEE TABLE 7, LINES 10, 11, ***OR*** 12	1	HAND TOOL CLEAN, SSPC-SP-2 ***SEE NOTES (29) & (40)***	ONE COAT F-150, MIL-DTL-24441 ***TYPE IV, 4-6 MILS*** SEE NOTE***S*** (1) ***& (29)***	|	ONE COAT F-156, MIL-DTL-24441 ***TYPE IV, 4-6 MILS*** SEE NOTE***S*** (1) ***& (29)***	|		8 MILS MIN,12 MILS MAX
	2	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)					EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS SEE NOTE (11)
	3	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 -- OR -- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING ***TO CONDITION*** HB2-1/2 L ***OR NACE 5/SSPC-SP-12 CONDITION WJ-2L*** SEE NOTE***S*** (23), ***(29) & (40)***	***SAME AS LINE ONE***		***SAME AS LINE ONE***	|		8 MILS MIN, 12 MILS MAX
	4	SAME AS LINE 3	MIL-PRF-23236 SEE NOTE (10)					EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (11)

GRP FIBERGLASS SURFACES TABLE 16	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO TOP OF BOOTTOP SERVICE LIFE FOR 2 YEARS OF LESS	1	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH AND LOOSE PAINT -- OR -- TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2 -- & -- SPOT CLEAN, CHAP 631-5.2.6 SEE NOTE (21)	ONE COAT F-150, MIST COAT, MIL-DTL-24441 SEE NOTE (1)	ONE COAT F-151, 3-4 MILS, MIL-DTL-24441 SEE NOTE (1)		2 COATS F-121A, 2 MILS/COAT, 4 MILS MIN TOTAL, MIL-P-15931 MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT AND UNDOCKING OF SHIP SEE NOTE (27)	2 COATS F-129A, 2 MILS/COAT, 4 MILS MIN TOTAL, MIL-P-15931 MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT AND UNDOCKING OF SHIP SEE NOTE (27)	ONE COAT MIL-***PRF***-24635, LT GRAY, COLOR NO. 26373 (FED STD 595), TO BOOTTOPPING & BELOW ONE COAT COLOR NO. 26173 (FED STD 595), MIL-PRF-24635, OCEAN GRAY, ABOVE BOOTTOPPING
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP 5 YEARS SERVICE LIFE	2	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, MIST COAT -- OR -- KHA303/KHA062 MIST COAT SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, 5 MILS -- OR -- KHA30**2**/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED, 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS BRA 642 BLACK, 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, MIST COAT	ONE COAT AMERON BAR-RUST 235, 5 MILS		ONE COAT ABC3 BLACK, ONE COAT ABC3 RED, 5 MILS EACH COAT SEE NOTES (2) & (6)	2 COATS DEVOE ABC3 BLACK, 5 MILS EACH COAT SEE NOTE (6)	SAME AS LINE ONE
	4	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC RED, 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC GRAY, 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF BLACK -- & -- ONE COAT OLYMPIC 7660-5111AF RED, 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS OLYMPIC 7660-1999AF BLACK, 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

GRP FIBERGLASS SURFACES TABLE 16 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) 7 YEARS SERVICE LIFE	5	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, MIST COAT -- OR -- KHA303/KHA062 MIST COAT SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, 5 MILS -- OR -- KHA302/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED, 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS BRA 642 BLACK, 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	6	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, MIST COAT	ONE COAT AMERON BAR-RUST 235, 5 MILS		ONE COAT ABC3 BLACK, ONE COAT ABC3 RED, 5 MILS EACH COAT SEE NOTES (2) & (6)	2 COATS DEVOE ABC3 BLACK, 5 MILS EACH COAT SEE NOTE (6)	SAME AS LINE ONE
	7	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC RED, 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC GRAY, 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF BLACK -- & -- ONE COAT OLYMPIC 7660-5111AF RED, 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS OLYMPIC 7660-1999AF BLACK, 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) 10 TO 12 YEARS SERVICE LIFE	8	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, MIST COAT -- OR -- KHA303/KHA062 MIST COAT SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, 5 MILS -- OR -- KHA302/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 640 RED, ONE COAT BRA 642, BLACK, ONE COAT BRA 640 RED, 6 MILS/COAT SEE NOTES (2) & (6)	2 COATS BRA 642 BLACK, 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	9	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, MIST COAT	ONE COAT AMERON BAR-RUST 235, 5 MILS		ONE COAT ABC3 RED, ONE COAT ABC3 BLACK, ONE COAT ABC3 RED, 5 MILS EACH COAT SEE NOTES (2) & (6)	3 COATS DEVOE ABC3 BLACK, 5 MILS EACH COAT SEE NOTE (6)	SAME AS LINE ONE

GRP FIBERGLASS SURFACES TABLE 16 (CON'T)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) 10 TO 12 YEARS SERVICE LIFE	10	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC RED, 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-1148AC GRAY, 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-5111AF RED -- & -- ONE COAT OLYMPIC 7660-1999AF BLACK -- & -- ONE COAT OLYMPIC 7660-5111AF RED, 5 MILS/COAT SEE NOTES (2) & (6)	3 COATS OLYMPIC 7660-1999AF BLACK, 6 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
UNDERWATER HULL METAL APPENDAGES (STRUTS, RUDDERS & OTHER CAVITATION PRONE AREAS) SERVICE LIFE FOR 2 YEARS OR LESS	11	SAME AS LINE ONE	ONE COAT MIL-DTL-24441, FORMULA 150, 3-4 MILS SEE NOTE (1)	2 COATS OF INTERNATIONAL PGA 750/751 AT 25 MILS EACH FOR A TOTAL OF 50 MILS DFT		ANTI-FOULING PAINT SAME AS SURROUNDING HULL		
UNDERWATER HULL METAL APPENDAGES (STRUTS, RUDDERS & OTHER CAVITATION PRONE AREAS) 5 TO 10 YEARS SERVICE LIFE	12	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 3-4 MILS SEE NOTE (4)	SAME AS LINE 11		SAME AS LINE 11 SEE NOTE (6)	SEE NOTE (6)	
	13	SAME AS LINE ONE	ONE COAT AMERON BAR-RUST 235, 3-4 MILS SEE NOTE (3)	SAME AS LINE 11		SAME AS LINE 11 SEE NOTE (6)	SEE NOTE (6)	
	14	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC RED, 3-4 MILS	SAME AS LINE 11		SAME AS LINE 11 SEE NOTE (6)	SEE NOTE (6)	

GRP FIBERGLASS SURFACES TABLE 17	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZ SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION:								
EXTERIOR SURFACES ABOVE BOOTTOP SEE NOTE (2)	1	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT -- OR -- TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722 TYPE 2 -- & -- SPOT CLEAN, CHAP 631-5.2.6 SEE NOTE (21)	ONE COAT F-150, MIL-DTL-24441, 2-4 MILS SEE NOTE)1)	ONE COAT F-151, MIL-DTL-24441, 2-4 MILS SEE NOTE (1)		ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) -- OR -- MIL-E-24763 TYPE II, CLASS 2, 3 MILS TOTAL PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY); IN LIEU OF WHITE USE LT GRAY COLOR NO. 26373. IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO. 26173
EXTERIOR WALK AREAS ALL EXTERIOR DECK AREAS	2	POWER TOOL CLEAN TO CLEAN FIBERGLASS (DISC SANDER, ETC.) -- OR -- POWER TOOL CLEAN TO POLYURETHANE OVERLAY SUBSTRATE (DISC SANDER, ETC.) -- OR -- HYDROBLAST TO CLEAN FIBERGLASS SEE NOTE (25)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 -- OR -- MIL-PRF-24483 TYPE I SEE NOTE (7)			ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G -- OR -- MIL-PRF-24667 TYPE IV -- OR -- MIL-PRF-24483 TYPE I SEE NOTE (19)		

FIBROUS GLASS BOARDS (INTERIOR) TABLE 18	LINE	A SURFACE PREPARATION	B PRIMER	C BULKHEADS & OVERHEADS	D	E	F	G
LOCATION: INTERIOR FIBROUS GLASS BOARDS	1	SOAP & WATER CLEAN & HAND SAND AS NECESSARY	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 MILS	2 COATS WATER-BASED INTERIOR LATEX, MIL-PRF-24596 -- OR -- 2 COATS NAVY F-25A FIRE RETARDANT INTERIOR LATEX				
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441 SEE NOTE (1)	2 COATS OF FINISH COAT DOD-E-24607, F-124, 125, OR 126 (COLOR TO BE DESIGNATE)				

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-70
DATE: 14 SEP 2000
CATEGORY: I

1. SCOPE:

1.1 Title: Fire Prevention and Housekeeping for Unmanned Craft; accomplish

2. REFERENCES:

a. 29 CFR Part 1915, OSHA

b. National Fire Protection Association Standard 51B

c. National Fire Protection Association Standard 312

d. National Fire Protection Association Standard 306

3. REQUIREMENTS:

3.1 Comply with the requirements of 2.a through 2.d and this item to determine whether or not an explosive or other dangerous atmosphere exists in spaces and piping aboard the craft, including sewage collection and holding tanks, and then control hot work and entry to those spaces to preclude damage to the craft or injury to personnel.

3.1.1 Provide training for Competent Persons and provide updated training on an annual basis by a National Fire Protection Association (NFPA) certified Marine Chemist using Section 1915.7 of 2.a as guidance or under an NFPA approved Competent Person Training Program. The length of the initial training class shall be at least 24 hours. Yearly refresher training shall be at least 8 hours.

3.1.2 Post a copy of the Marine Chemist's certificate or Certified Industrial Hygienist's or Competent Person's test/inspection record at each access to the affected space while work in the space is in progress. A copy of the certificate or test/inspection record shall also be delivered to a location designated by the SUPERVISOR. In the event that the space is found not to be Safe for Workers/Safe for Hot Work, the space shall be posted accordingly and the SUPERVISOR and craft shall be notified immediately.

3.1.2.1 Initial certification of spaces that require a Certified Marine Chemist's certificate or Certified Industrial Hygienist's

test/inspection and subsequent certification made in support of work operations shall be effective for 24 hours or until conditions change which would void the certificate (whichever comes first).

3.1.2.2 Subsequent tests and inspections which continue the space certifications shall be made by a Competent Person to support work operations and shall be effective for 24 hours or until conditions change (affecting the designation for which the spaces were certified), whichever comes first.

3.1.2.3 The 24-hour interval for subsequent tests and inspections made by a Competent Person as described in 3.1.2.2 is not required during non-working periods (not in excess of 72 hours); however, the Competent Person shall perform the tests and inspections required on all confined spaces involved, and affected adjacent spaces, before anyone is permitted to enter those spaces, on the next working day. Confined spaces and enclosed spaces and affected adjacent spaces shall be checked prior to commencing hot work operations on the next working day following the non-working period (not to exceed 72 hours). If the 72-hour non-working period is exceeded, then the certifications in 3.1.2.1 are required.

3.1.3 Tank cleaning personnel shall be trained annually on safety practices to include a discussion of safety information found in Subparts A, B, and Section 1915.152 of Subpart I of 2.a.

3.1.4 Submit one legible copy of each of the following documents to the SUPERVISOR prior to the accomplishment of work requiring the services identified below.

3.1.4.1 A roster of designated Competent Persons, along with contractor certification that the training in 3.1.1 has been completed within the past year. Updates to the roster each time Competent Persons are added, deleted, or recertified.

3.1.4.2 A list of Competent Person(s) and tank cleaning personnel who will enter or work in confined spaces, including company name, badge number, and date training was provided in accordance with 3.1.1 and 3.1.3.

3.1.4.3 A list of the names of the Shipyard/Plant Rescue Team Members, along with contractor certification that the training in 3.1.1 has been completed within the last year, or certification that arrangements have been made for an outside rescue team to respond promptly to a request for rescue service.

3.1.4.4 A copy of the program to be utilized to train fire watches in the areas identified in 2.a and 2.b, including steps to be taken by the fire watch and hot work operator prior to accomplishment of hot work, proper selection and use of fire extinguishing equipment and other safety equipment, relationship between the fire watch and hot work operator, proper

fire reporting procedures and other sounding of fire alarms, and reporting of accidents to the ship's quarterdeck. This training should also include theory and practical (hands-on) fire suppression techniques. This training shall be provided to all newly assigned fire watches, with annual updates provided to personnel. ***Provide visible means of identifying trained fire watches, i.e., badge, sticker, vest, etc.***

3.1.5 Notify the SUPERVISOR prior to entry into spaces designated as Immediately Dangerous to Life or Health (IDLH) as defined in Paragraph 1915.11(b) of 2.a.

3.2 Provide a written notice for each job or separate area of hot work aboard the craft.

3.2.1 The notice shall state a description of the work to be done, the specific location of the hot work and compartments adjacent to decks, bulkheads, and similar structures upon which hot work is to be accomplished, the time hot work will commence, and current gas-free status of the area, | the absence or existence of combustible material in the vicinity of the operation, and if combustible material exists, what action shall be taken to protect the material from fire, the provision and assignment of a fire watch, and the affirmation that conditions at the work site (ventilation, temporary lighting, accesses) permit the fire watch to observe all areas where the hot work constitutes a fire hazard.

3.2.2 The notice shall affirm that a suitable, fully-charged fire extinguisher shall be available at the job site and provide for an inspection of the area 30 minutes after completion of the hot work or the cessation of hot work at the job site as the final action to complete the notice if no further fire hazard exists.

3.2.3 The notice shall be signed by a supervisor specifically designated as responsible for coordination of the hot work and the fire watch requirement.

3.2.4 One copy of each notice shall be given to the SUPERVISOR.

3.2.5 The notice to the SUPERVISOR shall precede the initiation of the actual hot work. A new notice is required if work is interrupted due to loss of gas-free status.

3.3 Provide fire watches, trained as outlined in 3.1.4.4, at all affected areas where hot work is being accomplished. Provide fire extinguishing equipment as described in 2.a through 2.c. Fire watches and equipment shall meet the following requirements, as a minimum:

3.3.1 A firewatch(es), other than hot work operator, is required when:

3.3.1.1 Any flame cutting, welding, plasma cutting, arcing and gouging, electric arc welding, thermal spraying or any other hot work which produces sparks or slag that can be dropped or thrown or that causes heat to be transferred through a deck, bulkhead, or overhead to a location not visible to the hot work operator is being done.

3.3.1.2 Combustibles have not been removed or protected from heat conduction or ignition sources.

3.3.1.3 Equipment cannot be protected from falling sparks.

3.3.1.4 Openings in decks, bulkheads or overheads cannot be protected.

3.3.1.5 Ducts and conveyor systems cannot be blanked off, protected or shut down.

3.3.2 Each fire watch attending workers performing hot work shall be equipped with a fully-charged and operable fire extinguisher and shall remain at the job site for at least 30 minutes after the completion of hot work and until released in accordance with 3.3.2.

3.3.3 Where several workers are performing hot work at one site, the fire watch shall have a clear view of and immediate access to each worker performing hot work.

3.3.3.1 No more than four workers shall be attended by a single fire watch.

3.3.4 In cases in which hot material from hot work may involve more than one level, as in trunks and machinery spaces, a fire watch shall be stationed at each level unless positive means are available to prevent the spread or fall of hot material.

3.3.5 In cases where hot work is to be performed on a bulkhead or deck, combustible material shall be removed from the vicinity of the hot work on the opposite side of the bulkhead, overhead, or deck, and a fire watch shall be posted at each location.

3.3.5.1 If multiple blind compartments are involved in any hot work job, fire watches shall be posted simultaneously in each blind area.

3.4 Locate oxygen, acetylene, or gas supply systems off the craft. Manifolds connected to pierside supply systems may be placed on board as long as they are equipped with a shutoff valve located on the pier. The pierside shutoff valve shall be in addition to the shutoff valve at the inlet to each portable outlet header required by 2.a.

3.4.1 Liquid oxygen (LOX) tanks used for fuel gas/oxygen operations shall be stored to prevent collisions by trucks, forklifts, falling objects, etc.

3.4.2 LOX tanks shall be staged in designated locations on the quay wall/pier to be determined jointly by the contractor/ship/SUPERVISOR.

3.4.3 When gas cylinders are required on board, they shall be located on the weather decks and shall be secured and in an upright position. The number of in-use cylinders shall be limited to those which are required for work in progress and which have pressure regulators connected to the cylinder valves. On board reserve gas cylinders shall not exceed one-half the number of in-use cylinders and shall be located in a remote area of the weather decks.

3.4.4 When not in use, gas cylinders on board shall have valves closed, lines disconnected, protective cover (cap) in place, and shall be secured and in an upright position.

3.4.4.1 Overnight and at the change of shifts, the torch and hose shall be removed from confined and enclosed spaces. Open end fuel gas and oxygen hoses shall be immediately removed from confined or enclosed spaces when they are disconnected from the torch or other gas consuming device.

3.4.5 Upon completion of oxygen - fuel gas system hook-up, accomplish a pressure drop test in open air to include the torch, hoses, and gages.

3.4.5.1 Apply pressure to the system. Back off pressure by turning off valve supplying gases to the system. If the pressure on the gage drops, a leak on the system exists. If the pressure on the gage does not drop, the system is tight.

3.4.5.2 After applying pressure, wait two or three minutes to ensure pressure does not drop.

3.5 Use fire retardant materials aboard or adjacent to the craft for staging, screening, temporary covers, shelters, deck covering, and ventilation ducts.

3.5.1 Lumber shall be fire retardant in accordance with Category One, Type I, of MIL-L-19140. Plywood and staging boards shall be Category 2, Type II, of MIL-L-19140, and shall be marked with date of treatment, with exterior surfaces dyed or stained to a blue to blue green color range.

3.5.2 Storage of material aboard shall be limited to that which is required for work in progress.

3.5.3 Prior to bringing equipment or working material aboard, its crating and packing shall be removed. If the equipment or material may be

damaged during handling, the crating and packing shall be removed immediately after the equipment or working material is brought aboard and taken ashore for disposal.

3.5.4 Temporary lights shall have three-conductor cable, guard or shield, hook, and lamp holder. Exposed non-current-carrying metal parts of the fixture shall be grounded either through a third wire in the cable containing the current conductors, or through a separate wire which is grounded at the fixture's voltage source.

3.5.5 Flammable liquids with a flash point of 150 degrees Fahrenheit or less, including degreasers, solvents, and fuels shall be kept in safety cans when not in actual use or when left unattended and limited to one day's supply for on board use.

3.5.6 Rigging of hoses, welding leads, and temporary lights shall be kept clear of the decks on temporary trees or brackets and be arranged to minimize tripping and other safety hazards and to allow free access through doors, hatches, and passageways.

3.5.7 Ensure at least one unobstructed access to each main and auxiliary machinery space.

3.6 Accomplish a fire prevention and housekeeping inspection on a weekly basis whenever work is in progress. The inspection shall be made jointly with the SUPERVISOR. A written report of the discrepancies and corrective action to be taken shall be prepared by the contractor and copies distributed to the SUPERVISOR within four hours after completion of the inspection.

3.7 Report verbally each accident/fire occurring on the craft involving contractor/subcontractor personnel to the SUPERVISOR as soon as management becomes aware of such an event.

3.7.1 Provide a formal written report of the event to the SUPERVISOR within 24 hours of each accident requiring medical treatment, and each fire. The written report shall contain the name and ID number of each injured person, date and time of accident/fire, extent of each personal injury or property damage, contractor/subcontractor name, Job Order, type of accident/fire, location of event (craft name and hull number, space, compartment), and a brief description of the event including occurrences leading up to the accident/fire.

4. NOTES:

4.1 Recognizing a conflict between the definition of hot work in 2.a and 2.d, in instances where certification is required by a Certified Marine Chemist, the decision of the Certified Marine Chemist shall prevail.

NAVSEA
STANDARD ITEM

FY-01 (CH-2)

ITEM NO: 009-78 |
DATE: 14 SEP 2000 |
CATEGORY: II |

1. SCOPE:

1.1 Title: Passive Countermeasures System (PCMS) Material Installation Requirements; accomplish

2. REFERENCES:

a. Standard Items

b. RIM 05T1-99, Passive Countermeasures System (PCMS) Installation Methods

c. PHS&T 05T1-02, Passive Countermeasures System Packaging, Handling, Storage and Transportation Plan

3. REQUIREMENTS:

3.1 Install new PCMS material in accordance with 2.b and 2.c.

3.1.1 Personnel involved in PCMS material installation, including surface preparation, material application, final painting, and quality assurance shall be trained and certified in accordance with Section B.3 of 2.b.

3.1.2 Accomplish the requirements of Sections B.4 and B.5 of 2.b for material control and material disposition.

3.1.3 Accomplish additional PCMS material handling and storage requirements in accordance with 2.c.

(V)(G) "ENVIRONMENTAL REQUIREMENTS"

3.1.4 Verify the environmental requirements of Section C.1 of 2.b are met prior to application of primers, tiles, caulking, and paint.

(V)(G) "SURFACE PREPARATION"

3.1.5 Accomplish surface preparation of surfaces receiving new PCMS material in accordance with Section C.2 of 2.b.

(V)(G) "PRIMER APPLICATION"

3.1.6 Preserve surfaces receiving PCMS material in accordance with Section C.2.3 of 2.b.

3.1.6.1 Accomplish the requirements of 009-32 of 2.a.

3.1.7 Accomplish preliminary cleaning, abrasion, and final cleaning of primed surfaces in accordance with Section C.4.4 of 2.b for non-Pressure Sensitive Adhesive (PSA) tiles, or Section C.4.5 of 2.b for PSA tiles.

(V)(G) "WELD FAIRING"

3.1.8 Verify the fairing of weld seams is in accordance with Section C.3 of 2.b.

3.1.9 Install new PCMS material in accordance with Section C.4 of 2.b.

3.1.9.1 Template from existing shipboard conditions.

3.1.10 Caulk all seams and exposed edges in accordance with Section C.5 of 2.b.

(V)(G) "FINAL INSPECTION"

3.1.11 Accomplish a final inspection of newly installed PCMS material to verify correct installation.

3.1.12 Accomplish surface preparation and preservation for topcoat of new PCMS material in accordance with Section C.6 of 2.b.

3.1.12.1 Accomplish the requirements of 009-32 of 2.a.

4. NOTES:

4.1 None.